

Branding versus Hedging

Adding value to a commodity like rice

A report for



By Drew Braithwaite

2016 Nuffield Scholar

November 2018

Nuffield Australia Project No 1619

Supported by:



© 2018 Nuffield Australia.
All rights reserved.

This publication has been prepared in good faith on the basis of information available at the date of publication without any independent verification. Nuffield Australia does not guarantee or warrant the accuracy, reliability, completeness or currency of the information in this publication nor its usefulness in achieving any purpose.

Readers are responsible for assessing the relevance and accuracy of the content of this publication. Nuffield Australia will not be liable for any loss, damage, cost or expense incurred or arising by reason of any person using or relying on the information in this publication.

Products may be identified by proprietary or trade names to help readers identify particular types of products but this is not, and is not intended to be, an endorsement or recommendation of any product or manufacturer referred to. Other products may perform as well or better than those specifically referred to.

This publication is copyright. However, Nuffield Australia encourages wide dissemination of its research, providing the organisation is clearly acknowledged. For any enquiries concerning reproduction or acknowledgement contact the Publications Manager on ph:(02) 9463 9229.

Scholar Contact Details

Drew Braithwaite
Independent Ag
730 Woodside Rd.
Beneremebah NSW 2680
Phone:0427634232
Email: dbraith@me.com

In submitting this report, the Scholar has agreed to Nuffield Australia publishing this material in its edited form.

NUFFIELD AUSTRALIA Contact Details

Nuffield Australia
Telephone: (02) 9463 9229
Mobile: 0431 438 684
Email: enquiries@nuffield.com.au
Address: PO Box 1021, North Sydney, NSW 2059

Executive Summary

The Australian rice industry has been very successful at growing, storing, milling, marketing and delivering Australian rice to customers domestically and internationally. This has been made possible and achievable due to the grower co-operative and now company, SunRice. It has been grower owned, controlled and driven. This success can also be attributed to the legislative framework that the New South Wales rice industry operates under, the *Rice Marketing Board Act* of 1983. The company, its shareholders and growers, have experienced huge swings in production in the last two decades due to drought, water reform policy changes and the introduction of cotton into the two main rice growing valleys. This has proven to be challenging for all participants in the Australian rice production chain.

SunRice has secured rice, both domestically and internationally, without the presence and use of a futures market to offset price risk. For domestic procurement, SunRice uses a pool system where the grower holds the price risk, whereas with international procurement SunRice bears price risk. A futures market or a single price reference point may erode the competitive advantage SunRice currently holds. SunRice's market experience, reputation and relationships has enabled the business to maintain existing markets, develop new markets and extract a premium.

Value-added, consumer focused and innovative rice products need to be the future focus of the industry. Where possible, the industry needs to provide incentives for loyalty to the pool to even out supply peaks and troughs and offer contracts for specialty varieties that have contracted sales in the market place. The industry also needs to focus on the whole rice farming system by investigating innovative and branded products from complementary crops in the rice system. This would enhance the profitability of the Australian rice farmer. Finding the most efficient and profitable level of production will also be key.

Table of Contents

Executive Summary	iii
Table of Contents.....	iv
Table of Figures	v
Foreword.....	vi
Acknowledgments	vii
Abbreviations	viii
Objectives	9
Chapter 1: Introduction.....	10
Chapter 2: Australian and global rice trade.....	12
Chapter 3: Futures markets.....	16
3.1 What is a futures market?	16
3.2 How would a rice futures market be of benefit to the Australian rice industry?	17
3.3 Other risk management products	17
Forward contract	17
Swaps	17
Options.....	18
3.4 Current rice futures contract.....	18
3.5 Why is there not a rice futures market?	20
3.6 Risk and strategy in detail.....	20
The Producer.....	21
Merchandisers, rice millers, traders, exporters, and importers.....	22
3.7 Risk management strategy benchmarking	22
3.8 Case study - Riceland Co-op	23
3.9 The future of rice risk management products.....	23
Chapter 4: Branding	25
4.1 Product and brand building	25
4.2 Global food trends	26
4.3 Market segments	28
4.4 E-commerce and the internet	29
4.5 Brand leverage.....	30
4.6 Provenance branding.....	31
4.7 Case study - SunFoods USA	31
4.8 The need for capital.....	32
Conclusion	34
Brand value and unlocking it	34
The whole picture	34
Rice pricing in an Australian context	34
Small volume niche markets	35
The pool	35
Recommendations	37
References.....	38
Plain English Compendium Summary	41

Table of Figures

Figure 1: Global rice trade. (<http://ricetoday.irri.org/trends-in-global-rice-trade/>) 12

Figure 2: SunRice's early marketing campaign (Lewis, G. 1994) 13

Figure 3: Australian Rice production (Ricepedia website, Sept. 2012)..... 14

Figure 4: Australian Rice Imports and Exports (Ricepedia website, Sept. 2012) 14

Figure 5: Chicago Board of Trade, hosts of a number of agriculture commodity futures markets (Source: Author) 16

Figure 6: Relationship between medium grain prices and the rough rice futures price (Hamilton, M) 19

Figure 7: 7p's of marketing (The Marketing Mix website, 2017) 25

Figure 8: Sticky rice in plastic (Source: Author) 27

Figure 9: Rice in a can in California (Source: Author)..... 27

Figure 10: Rice marketed in cool store boxes (Source: Author) 28

Figure 11: Naughty but rice convenient packaging (Source: Naughty but Rice website)..... 29

Figure 12: Small scale rice mill in Japan and branded rice products (Source: Author)..... 30

Foreword

I am a third-generation irrigation family-farmer from the New South Wales (NSW) Riverina. We are a family farming operation growing rice, wheat, canola and seed crops. There have been a number of changes that our sector has faced in recent decades. These have included droughts, water policy reforms, water market developments, huge asset growth and the arrival of new crops to the area. These have led to pressure being placed on land and water resources. These factors mean that growers need to achieve higher returns from the crops that we grow in order to stay profitable and relevant.

This topic came from the many conversations that growers have at planting time, centred on this management decision: “does a farmer plant cotton and lock in prices at sowing time, or plant rice and not know the price until the pool has closed in 18 months’ time?”.

It is possible to forward sell other crops through well-established and liquid futures markets, however with rice there is no opportunity to forward price grain.

At each stage during my travels to research this topic, it was clear that SunRice is doing an exceptional job. This is a testament to our fore-fathers who had the vision to start the cooperative and to the past and present board and management team.

This report is a discussion about the competing elements that a successful grower business faces in the ever-changing modern world.

During my study, I have travelled to Ireland, United Kingdom (UK), France, Singapore, Indonesia, Japan, Israel, Netherlands, United States of America (USA) and New Zealand. I have been lucky enough to meet growers, millers, marketers, advisers and grain traders.

Acknowledgments

I cannot thank my wife, Abby Braithwaite, and my three young daughters Macey, Harriet and Georgia, enough for supporting me on my endeavour. It was a life goal to complete a Nuffield Scholarship and they supported me every step of the way, in both the tough times and great times.

I need to express my gratitude towards my father and mother, Ian and Colleen Braithwaite. My father worked tirelessly keeping our farming business operating, whilst I travelled the world for Nuffield. From the bottom of my heart, I would like to thank my mother, Colleen Braithwaite. She has been my sounding board throughout this Nuffield experience and provided me with support both emotionally and physically, often helping Abby and the children whilst I was overseas.

I wish to extend my gratitude towards Abby's family; my father in-law, Kerry Gallagher, Tom and Lara Gallagher, and Julie and David Storrier, whom Abby and my girls lived with throughout my travels. Thank you for your love and support.

Thanks to my sister and brother in-law, Tom and Meeghan McInerney. Thank you for opening your home to our baby, Georgia, so that Abby could join me on my travels in New York City.

A big thank you goes out to the Australian rice industry, its leaders and my investor AgriFutures Australia. Thank you also to the Nuffield Foundation and its network. Without this program, its employees and the alumni none of this would be possible.

Abbreviations

AWB: Australian Wheat Board

CBH: Cooperative Bulk Handling

GI: Glycemic Index

LRI: Live Rice Index

NSW: New South Wales

UK: United Kingdom

USA: United States of America

USDA: United States Department of Agriculture

Objectives

As a rule, growers produce commodities which are traded on price. Growers are therefore at the mercy of the markets. This begs the question: how does a producer become a price maker, to maximise profits and even out volatility?

The objectives of this report are to:

- Evaluate and understand rice futures markets and their potential use and interaction with branded rice products for the Australian rice industry.
- Evaluate and understand branded rice products and their consumption.

Chapter 1: Introduction

The Australian rice industry has been very successful in the development of value-added branded rice products that are delivered to customers throughout the world. This has been achieved with the collective group of rice farmers over several decades and been a real success story. So successful, that even during extreme droughts the business, its shareholders, and its growers have maintained market relevance and profits. This has been achieved without the existence of a futures market in which to hedge risk.

SunRice runs a pool system where growers plant their crops not knowing what the final price for their rice will be. Indications are given but are very rarely guaranteed. In recent years, this model has come under some pressure as a result of changing water policies, drought and the introduction of other crops into the two rice-producing valleys. These new crops have well established futures markets, giving growers the option to secure a price at sowing time. These growers then know their budgeted profit margin at the day of planting.

In the past, the grower and the processor, SunRice, were one under the cooperative structure, and grower loyalty has been strong. The change from a co-operative to a company has been the first step towards the grower and the shareholder being separated and thus loyalty is not what is once was.

With all these factors at play, volumes of domestic supply have been hugely variable - from 19,000 tonnes to 1,200,000 tonnes - increasing the risk for all parties in the rice value chain. Early price signals and the price paid for paddy are now more important than ever to the success of the industry.

Producers need to make a clear decision whether they are a commodity producer, where the lowest cost of production and highest output has the competitive advantage, or are they a customer-focused, branded-product business, where the marketer and the entrepreneur hold the competitive advantage? By making this decision, growers can then focus on the profit drivers of their business and what is required to make businesses successful.

Following this decision, they then can decide whether to work individually or collectively. Examples of farmers collectively running a commodity business include the Australian Wheat Board (AWB) and Co-operative Bulk Handling (CBH) in Western Australia. Examples of farmers

operating collectively in customer-focussed branded products include SunRice and Murray Goulburn.

Chapter 2: Australian and global rice trade

Rice provides the base diet for more than half of the world's population. It also has the most volatility compared with other grains like wheat and corn. This volatility has impacts on societies and their governments. Types of rice trade are fragrant (long grain), and non-fragrant long, medium and short grain rice. Around 90 per cent of rice produced globally is grown in Asia.

Global rice trade has risen to around 42 million tonnes from 10-12 million tonnes in the late 1980s (<http://ricetoday.irri.org/trends-in-global-rice-trade/>). This level of trade accounts for 9 per cent of world's production, up from 4 per cent of production at that time. Figure 1 depicts tons of rice traded globally and this figure as a proportion of total global production.

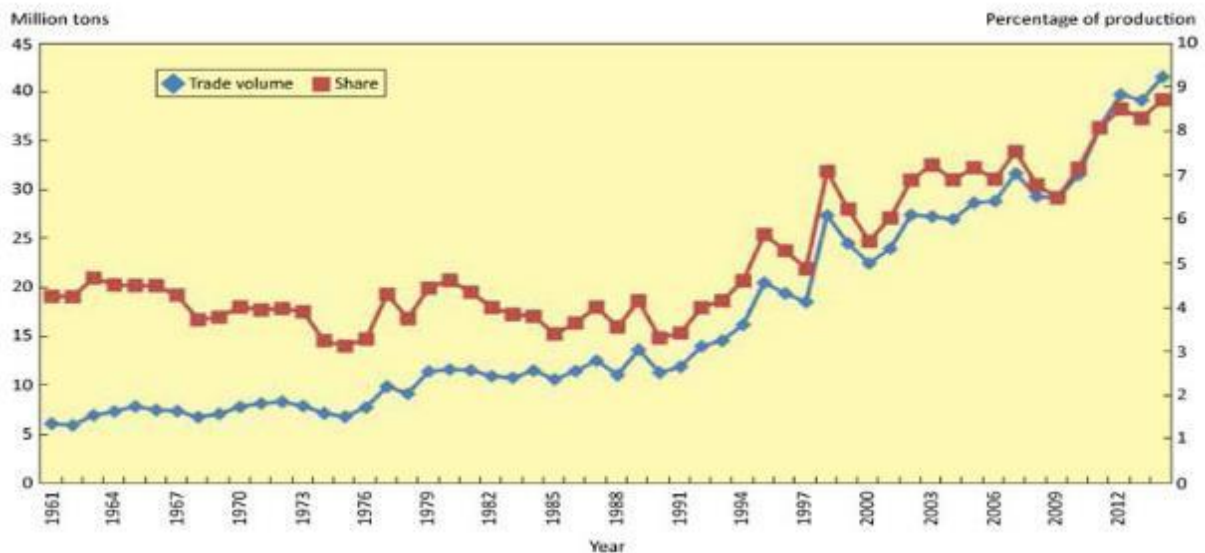


Figure 1: Global rice trade. (<http://ricetoday.irri.org/trends-in-global-rice-trade/>).

In the Australian context, rice purchased and sold in NSW, the largest rice producing state in Australia, is done so under the legislative framework of the Rice Marketing Board of NSW. The Rice Marketing Board of NSW was the first commodity marketing board, established in 1927. The Board's objective is to achieve the best monetary outcome possible for rice growers (<http://www.rmbnsw.org.au>). In 2016, the NSW Government renewed single desk marketing until 2022, citing that a price premium of \$65-\$120 per tonne exists for rice exported from NSW (Rice Marketing Board NSW website, 2017).

Due to the rapid growth of rice production during the 1950s-60s there was a need to build rice storage sheds to handle the ever-growing rice crop. The Rice Marketing Board of NSW was responsible for this at the time and borrowed money from the banks to fund the infrastructure build. The growers were then charged a per tonne rate to pay down the loan and the interest associated with the loan. In return, growers received equity in the storage facilities and growers could redeem the contributed funds. After a number of changes to the system, with the core principles staying the same, the scheme ended in 2005, corresponding with the deregulation of the domestic rice market. The storage sheds were then sold to a SunRice subsidiary to ensure the original intention of the scheme was maintained by NSW rice growers, who had contributed to the scheme (Rice Marketing Board NSW website, 2017).

SunRice was originally set up as a grower-owned cooperative. The aim was to mill and market Australian rice and return as much value as possible back to the grower via the pool.



Figure 2: SunRice's early marketing campaign (Lewis, G. 1994)

In a global context, the Australian rice industry sells and competes mostly in medium grain markets. The biggest competitor has been the Californian rice industry as their rice varieties and quality is very similar. Global production volume of medium grain rice is a lot smaller, and as a rule higher in value, than long grain rice.

In line with historic and current market opportunities, Australian rice production is mostly made up of medium grain rice, with a small amount of long grain and speciality varieties. Figure 3 below highlights Australia's production from 1961 to 2014, with the trend line until

the early 2000s. It shows an increase in both yield and production of rice, due to the green revolution and the availability of water to grow the rice. Figure 4 outlines the Australian industry's export volumes and rice imports into Australia.

Post 2000, production varied substantially due to what has now become known as the millennium drought. During this period, water availability was significantly affected, as was the level of production. Further to this, the arrival of new crops to the rice growing areas in New South Wales and a change in water policy has also impacted on the amount of water available to grow rice, and therefore possible production.

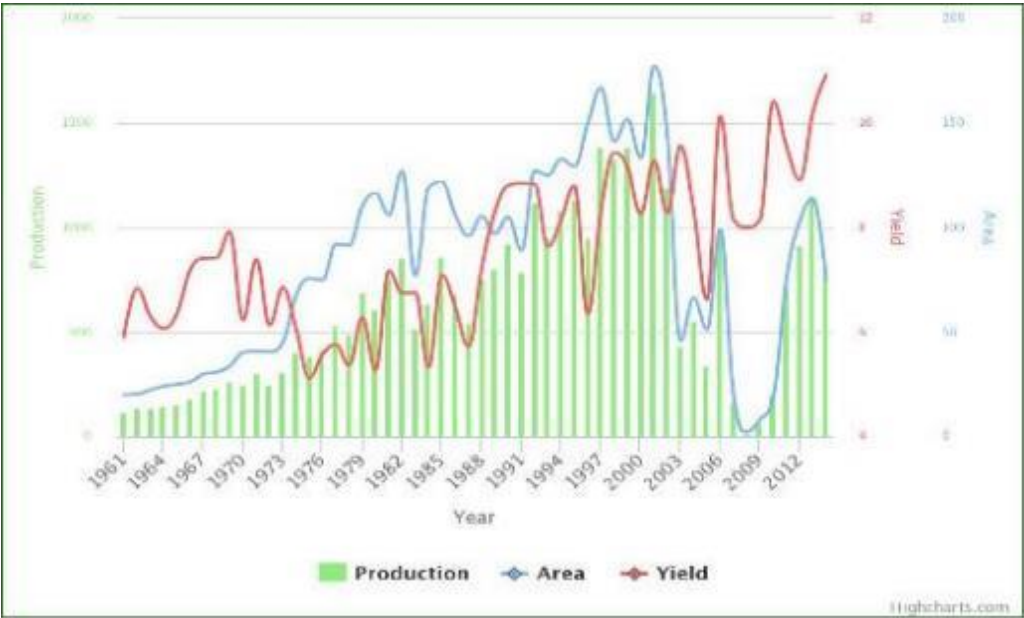


Figure 3: Australian Rice production (Ricepedia website, Sept. 2012).

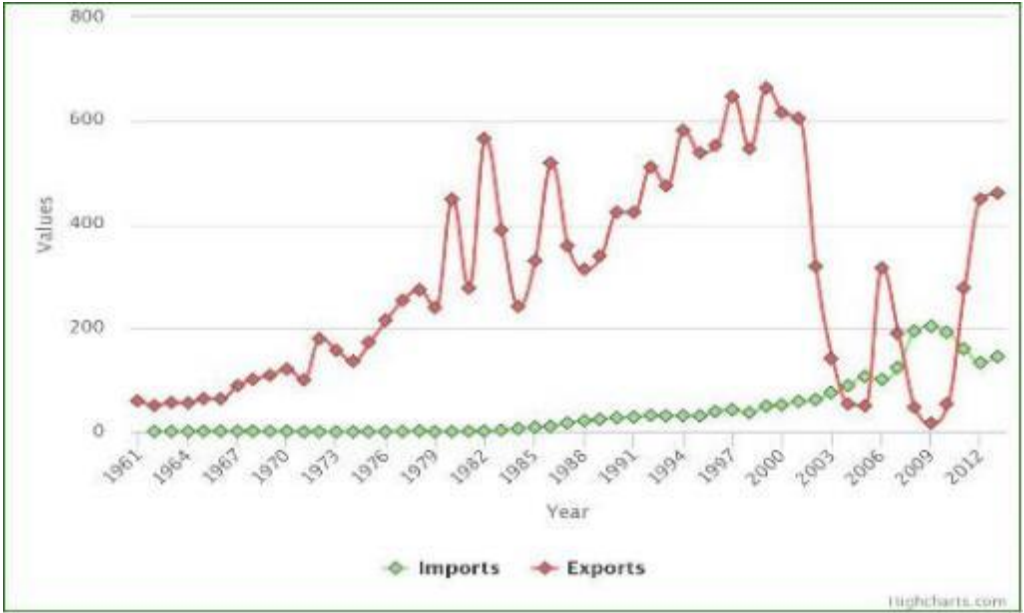


Figure 4: Australian Rice Imports and Exports (Ricepedia website, Sept. 2012)

These swings in the production level of rice, due to the factors listed above, has made it difficult to maintain infrastructure, jobs and markets. Continuity of supply and quality is one of the most important aspects of developing and maintaining a market. This is the future challenge for SunRice, as Figure 4 clearly shows.

Chapter 3: Futures markets

"Hedging against investment risk means strategically using instruments in the market to offset the risk of any adverse price movements. In other words, investors hedge one investment by making another. Technically, to hedge you would invest in two securities with negative correlations." (Dubey, A. 2012)

3.1 What is a futures market?

A futures market is a contract between two parties to exchange a product for a price in the future, where the contract is facilitated by an exchange. Futures markets participants include the buyer, the seller and the speculator. The seller wants protection from the price falling so it is looking to lock in a profit. The buyer on the other hand, requires protection from the price rising. The speculator wants to profit from any move in price and thus provides liquidity for the market to function efficiently.

The logic is that an efficient futures market can provide transparency and an efficient means of price discovery. This could help a small farmer to achieve a higher price, but it may also erode the profits of parts of the value chain by having one price reference point with which market participants can compare. For example, some trading companies value their sources of price discovery and profit from this information. A standardised price removes this market opportunity from these companies, such as ADM and Bunge.



Figure 5: Chicago Board of Trade, hosts of a number of agriculture commodity futures markets (Source: Author)

Most trade is completed electronically but there are still some outcry trading pits for some futures markets.

3.2 How would a rice futures market be of benefit to the Australian rice industry?

Business and cooperatives have life cycles. Where in the business life cycle an entity is, will ultimately determine whether using futures products would be beneficial. For the Australian rice industry and SunRice, a futures market would be helpful to secure supply and compete for land and water. SunRice could forward contract growers and take positions on international futures market so that the risk to the individual grower is minimised.

On previous occasions where SunRice has attempted to secure guaranteed supply domestically through upfront pricing contracts, the pool has borne the risk of market shifts. Although SunRice had the best intention for the industry at the time, this plays one grower against the next and is not beneficial for the industry long term. If there was a futures market, the risk associated with the contracted grain would be off-loaded onto the futures exchange.

However, there is also some downside to the development and use of futures markets. For example, the large trading profit that SunRice achieved in the 2008-2009 financial year, from buying and selling rice in a rising market would have been significantly reduced, if the purchases had been hedged on a futures market.

3.3 Other risk management products

Forward contract

This is much the same as the futures contract, however payment is not guaranteed by the exchange as it is with a futures contract. In this circumstance, the agreement is made between a buyer and a seller. The terms including a price and a point in time in which both parties agree the exchange will take place. A futures market is normally used to set the price and the time of execution.

Swaps

“These are a bilateral agreement to buy and sell a commodity over a period of time” (McKenzie, A. March 2012). In other words, it is an agreement to exchange a fixed price for that of a floating price for a specified time. There are counter-party risks associated with swaps and the swap price needs to be based on a futures market. Without a futures market, a swap product is harder to develop (McKenzie, A. March 2012).

Options

Options are another way to hedge price risk. In this situation, a grower would pay a premium for the right to sell a commodity at a date in the future.

- Call option: *"A contract whereby the holder of an option has the right to buy from the grantor at a specific price (strike price) at some point in the future."* (Golis, C. 2002).
- Put option: *"A contract whereby the holder of an option has the right to sell from the grantor at a specific price (strike price) at some point in the future."* (Golis, C. 2002).

Options also require a futures price to in order to establish the price of the option.

3.4 Current rice futures contract

There is a long grain rice futures contract that exists on the Chicago Board of Trade. Although the long grain production, market and trade is greater than that of medium grain market, the long grain futures market trades very thinly. The thinner the trade and less liquidity, the less efficient the market is in price discovery. This makes it difficult to be a useful for tool for growers, millers and speculators.

Setting the lack of liquidity aside, would trading rough rice futures as a risk management tool for medium grain rice be of any value to the Australia rice industry? For example, is there a correlation between medium grain and long grain markets? Figure 6 shows that these markets are completely separate and independent of each other. There is an opportunity to trade this market in some years, but it would be hard to predict in which years to participate or not. The concept would be to hedge in high production years both in Australia and California and not to participate in low production years. Due to the complexity of this strategy, it would require dedicated resources and constant review to ensure that it was, in fact, reducing risk.

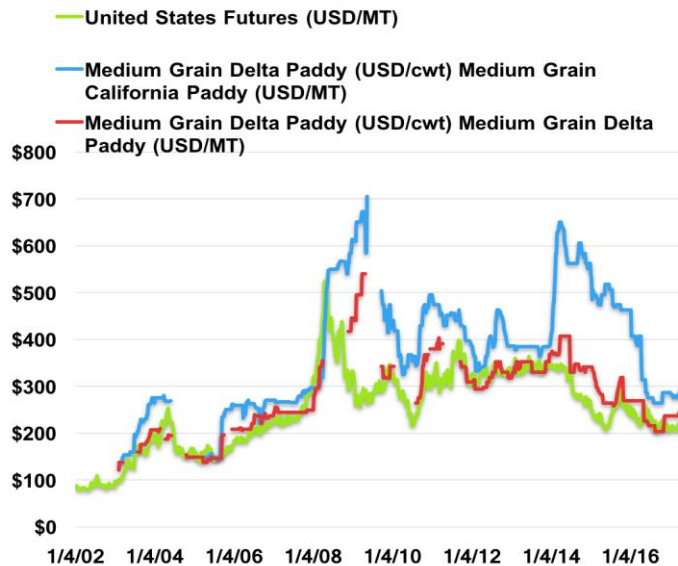


Figure 6: Relationship between medium grain prices and the rough rice futures price (Hamilton, M)

Other current rice futures markets include Japan and China. Japan resumed rice futures contracts in 2011 for the first time in 72 years (for a test period by the government). The market is traded on the Osaka Dojima Commodity Exchange. Osaka is symbolic, as it is the home of the first rice futures trading market during the Edo Period (1603-1868). It has had a somewhat troubled trial period with the National Federation of Agricultural Cooperative Associations, the largest rice trader in Japan, opposed to the market. The reason being they do not want the Japanese staple rice being subjected to speculation and thus price volatility (Nikkei Asian Review, 27 July 2017). The market has also had the added challenge of the earthquake influencing the local cash rice price. The market has struggled to reach 1,000 contracts per day. The irony here is that the Asian Development Bank's sustainable development working paper investigation into rice futures markets outlined that a rice futures market would take out price volatility (Mckenzie, A. March 2012).

China's Zhengzhou Commodity Exchange has rice contracts. It is interesting to note that they have a medium grain Japonica contract that would be comparable to the rice the Australian rice industry grows and trades. This market does not have any trade and no liquidity. The Zhengzhou rice futures is basically used for the domestic market and has little or no value as a risk management tool for international (non-Chinese) firms (Mckenzie, A. March 2012).

3.5 Why is there not a rice futures market?

Rice has very close links to political authority and stability (Dr. Mohanty, Aug. 10, 2018). In Asia, rice markets are controlled and regulated by their governments. The primary reason for this control over both the supply and demand of rice in these countries is because rice is the staple and base of their citizens' dietary requirements. Rice availability to the population of these countries has social and political implications and underpins the stability of these regions. Thus, governments of these countries consider it to be in their best interests to maintain regulation and control of their rice markets. Rice price and availability is seen as a gauge of government performance (<http://ricetoday.irri.org/trends-in-global-rice-trade/>).

The control and influence over rice trade has implications for the success of a fully transparent and liquid futures market, which gives a true indication of the price at a point in time. Further to this, a futures market would not be able to function if a government's rice trade policies were to continually change. These changes would undermine the confidence of participants in these futures markets. Without the engagement of these Asian countries, a successfully functioning rice futures market is highly unlikely.

Another reason for the failure of rice futures markets is due to the number of different types of rice, making a standardised rice futures contract very difficult to achieve. For example, there is short, medium, long, jasmine, basmati, white, brown and parboiled rice.

In each category, there is not enough volume and thus not enough liquidity.

3.6 Risk and strategy in detail

It is important to understand who you are in the market chain. Any trader must know their risk and establish if the engagement of futures markets can benefit their business. A producer's risk is different to that of a processor, and a processor's risk is different to that of a trader or speculator. A grower holds the risk of production, price, input costs, water availability, quality and volume. A trader holds the price risk. A processor with infrastructure needs to ensure through-put in order for the assets to pay for themselves. The brand owner needs continuity of supply to make sure the consumer receives the product when required. The brand owner also holds the risk of distribution and threats from other entrants.

The Producer

Producers are the first part of the rice marketing chain. Producers wish to protect themselves against the price falling. For example, in other commodities such as wheat the cheapest price can be at harvest when there is a lot of grain around and people need to sell for cash flow reasons.

By selling futures contracts when prices are at profitable levels and buying back futures contracts at the time of the cash sale, producers can eliminate the price risk of the price falling but are exposed to the risk of the price rising. This risk management strategy is referred to as a short hedge, and in effect replaces price risk with basis risk. The basis is by definition the difference between the local cash market price for rice and the rice futures price. In other words, in theory, farmers could lock in a price level several months prior to selling their crop. They would effectively guarantee their sale price at the time futures contracts are sold, subject to movements in their local basis. Given that the basis is inherently more stable than price, much of the risk associated with marketing a farmer's rice crop would be removed.

The grower's biggest risk is production variability, as the crop is grown out in the field and exposed to the elements. Each season is different, so production and yield vary from season to season, and year to year. As rice is grown with water, water availability also changes from year to year. This makes forward selling rice difficult to do as the volume a grower commits to can change so much. In these circumstances, the greater the variability in volume the less the grower should forward sell. This is because the more that is sold, the greater the risk of not being able to deliver.

By only selling a proportion of the expected yield the benefits of futures markets are diluted. This means that if a grower makes an increased margin through the use of futures trading on only 25 per cent of his crop and then it is divided over the total production, this margin is reduced by a further 25 per cent. The question then become is it worth it at all?

Some countries, such as the USA, have crop insurance to take out some of this production risk. Growers can insure for not being able to plant, wet weather or no water, price falls, and loss of production due to an adverse production event. These insurance premiums do not reflect the true cost of the risk as they are subsidised by the government, making them more affordable for the farmer. Australian rice growers have limited access to these products at affordable levels, making early commitments to rice production volumes very risky.

The likelihood of producers using the futures market in any volume is highly unlikely. Growers do not like financing margin costs associated with hedging. A good example of growers not using futures markets is the USA. The United States Department of Agriculture (USDA) has attempted to educate farmers on how to hedge using futures markets, but there is only a very small percentage of farmers actively using USA grain and rice futures markets to hedge their production. USA farmers instead prefer to manage their price risk by working with the millers and elevators (storage sites) to fix forward prices or sell for cash. The merchants, millers and traders are the main users of the futures markets in the USA and this enables them to develop products for the grower.

Growers have neither the time nor the training to manage the futures markets to benefit their sale price. There is an argument that growers could use an adviser to help guide them on a strategy, but this still takes time, funds to pay advisers, capital for margin calls and skills that many growers really do not have.

For the Australian rice grower, with so many variations in their production system, it could be argued that participating in future sales is riskier as the grower will hold all the risk from quality to volume and will only be protected from the price falling. If the farmer is only protecting against the risk of the price falling, why do it?

Merchandisers, rice millers, traders, exporters, and importers

This part of the chain is where the resources and the experts need to make full use of the futures markets.

Some of the processor's income is derived from the sale of waste products, for example rice hulls. The processors hold the risk of the sale price of these items, which can make the difference between a profit or a loss for the farmer.

The processor wears the price risk, as they cannot purchase the grain, mill it and sell it, all at once. This is only the case when the processor buys on the cash price; if they run a pool as outlined previously, the grower holds the price risk. The processor also makes money on the sale of by-products from the milling process.

3.7 Risk management strategy benchmarking

Taking positions on futures markets in Australia does not offload the production risk. A risk management strategy therefore must have a positive benefit. These strategies must be compared with other sales or purchasing strategies that do not engage these risk management tools.

The parameters around which a risk management strategy should be compared will depend on where a business is in the value chain. For example, for a grower net price should be greater compared with a “sell on the day of harvest” strategy.

A processor like SunRice’s aim may be to increase the supply of rice compared with other seasons. In this case the goal would be to have greater grower participation compared to the current pool system, which could be achieved with a more transparent pricing system.

Any risk management strategy should be evaluated on a cyclical basis to ensure relevance.

3.8 Case study - Riceland Co-op

Riceland Coop is one of the largest rice co-ops in the world. It can handle both rice and soybeans for its suppliers (growers) and its customers. It is based at Stuttgart, Arkansas, USA. Riceland Co-op is a good case-study example, as it runs rice pools and rice cash bids with a small engagement in futures markets. It also buys, sells and processes soybeans with the full engagement of the Soybean futures markets to offload risk.

Riceland Co-op has made use of the rough rice futures market with limited success. While purchasing physical rice, the company has bought positions on the rough rice futures market, but when they wished to close out their positions there was no buyer. In this circumstance, the hedged position was of no value to the company and actually cost them money.

3.9 The future of rice risk management products

Is there an opportunity to offload risk without there being a specific rice futures market or contract? In this circumstance, the buyer (SunRice) would like the opportunity to contract rice and offload the risk, without a single reference rice price. So, is there any other futures market that could be traded that would correlate to medium grain rice prices?

The development of the Live Rice Index (LRI), following the 2008 rice crisis, may offer the right benchmark from which to develop risk management strategies. Although not a real futures

contract like the Chicago Board of Trade (which does not correlate very well with LRI), it may be a benchmark against which prices can be compared. Products such as swaps and options could be priced from this index. However, given the history of rice futures markets, these products are unlikely to attract the interest of speculators and thus will have no liquidity and be inefficient for price discovery and risk management.

Chapter 4: Branding

"By definition, brand strategy is a long-term plan for the development of a successful brand in order to achieve specific goals. A well-defined and executed brand strategy affects all aspects of a business and is directly connected to consumer needs, emotions, and competitive environments." (AYTM website, June 2018)

4.1 Product and brand building

The 7 Ps of marketing are: Product, Place, Price, Process, Packaging, People and Promotion.



Figure 7: 7p's of marketing (The Marketing Mix website, 2017)

In the case of the Australian rice industry, it is important to note how much of this strategy is already controlled and operated. SunRice is well placed in all segments of the 7 Ps of marketing, but with an ever-changing world, there are always new opportunities (Kotler, Adam, Brown and Armstrong 2006).

Being a customer-focussed business and knowing the customer's value proposition is extremely important. Although through milling and distributing rice in a bag on a supermarket shelf, the Australian rice industry has moved down the value chain, it still is a highly competitive and crowded space. In this situation, price may still be the determining factor for a purchase and thus it could be argued this is still a commodity. How do rice growers get out of this space? What is the value proposition for the customer and how is it evaluated?

Using the 'Blue Ocean Strategy', customer values can be viewed in a simple canvas to visualise the opportunity. This is a concept whereby the needs of customers can be identified and rated to highlight what is important to the customer (Kim, W. Chan. Mauborgne, Renée. 2005). If a customer is reaching out for a product on the shelf or about to order it, and if they are not thinking about the price or brand as they purchase, what are they thinking about? Identifying what is important to your customer at an emotional level is the key to a successful product and brand.

Processing is an efficient business and requires large infrastructure and capital. Significant capital is required to build plants to process and package products for customers. In some cases, the operating profits come from sales of by-products. For example, an almond de-hulling plant generates income from the sales of the hulls to the livestock industry. For the Australian rice industry, an opportunity could exist with innovative products using rice bran. Rice bran is a by-product of the rice milling process and is considered a very good source of nutrition. Rice bran could be an emerging super food, following the global food trend of super foods.

Continuity of supply is extremely important to ongoing sales and customer loyalty. This has a huge impact on whether a brand is successful over the long term. It is the biggest risk to the rice industry's current brands and to the future development of new brands. Part of a brand's reputation is to deliver; the moment this does not happen, consumers will look to other brands and they are difficult to win back.

4.2 Global food trends

To maintain brand relevance to existing customers, industries need to grow new markets. The development of innovative products following food trends is critical. This does not apply only to rice foods, but food trends in general. As stated earlier, SunRice is across current food

trends like low glycemic index (GI), gluten free, fragrant rice, and super foods like Chia and Quinoa, and stabilised rice bran.

Global food trends include the increased use of the term superfood, health and wellness, active life style, easy, convenient and on-the-go, food safety, traceability and labelling.

Packing has a big role to play for the consumer’s experience of eating rice. Figure 8 shows a snack-size packet of cooked rice in a 7 Eleven store in the subways of Japan, designed for commuters to eat on the run.



Figure 8: Sticky rice in plastic (Source: Author)



Figure 9: Rice in a can in California (Source: Author)

Figure 9 shows a premium rice variety in a one-serve can. The aim of the convenient market segment is to make rice as easy to consume as the potato chip. New developments in technologies such as extruded rice and 3D printing could see rice used as a base product to create any shape or style that would make rice easy to consume on the run.

Quality is always at the top of consumers’ priorities in more wealthy cultures. High-end Japanese retailers used cool store rice boxes to keep the rice fresh. They also added a guide

to the texture and cooking qualities of the rice to add to the customer's experience. The scale shows whether the rice is hard or soft and light or sticky, as shown by the chart at the bottom of Figure 10.



Figure 10: Rice marketed in cool store boxes (Source: Author)

4.3 Market segments

There are many market segments into which rice can be sold. These include everyday rice uses in home or restaurant kitchens, convenience or snack rice products, breakfast products, dessert products and baby food products.

So that the paddy price can be lifted, SunRice will need to move into other market segments. The company has already been very successful in some mainstream segments, but what about some other higher value segments?

New customers in higher value segments may include rice-based baby food, and on-the-go products with innovative packing including a spoon, like the 'Chia Pod'. The confectionary and dessert market in convenience stores and vending machines may also prove fruitful. There are dessert products like “Naughty but Rice”, a rice pudding company (Naughty but Rice, website,

June 2017), and “Rice to Riches”, a retail store in New York selling rice pudding (Rice To Riches, website, June 2017).



Figure 11: Naughty but rice convenient packaging (Source: Naughty but Rice website)

The aim here is to move volume from lower price segments to higher margin segments. Again, this will need to be customer-focused and researched to find out what is important to customers in these segments. For example, food safety is incredibly important in the baby food segment. SunRice can provide high quality, safe baby food with supply chain transparency and charge a premium accordingly.

4.4 E-commerce and the internet

Referring to the 7 Ps model, there are many areas that e-commerce and the internet will affect. SunRice is well positioned in retail and wholesale markets, which could be described as existing demand in a well-established and competitive space. Emerging opportunities are in the other areas of this segment. Mail order sales over the internet, for example powdered milk into the Chinese market, indicate what is possible. Depending on import biosecurity protocols, SunRice could either send bagged rice or processed value-added products into these markets.

This is a very exciting space and has the capacity to collapse the existing supply chain model across the wholesale and consumer market segments. A good example of this is 'My Food Bag' in New Zealand.

'My Food Bag' is an idea where the customer can go online and select different categories of meal, and the ingredients for that meal are sent to the customer's door. The meal still needs to be cooked, however it may be a meal that is new to the customer, and for some customers the novel experience is worth the price (<https://www.myfoodbag.co.nz>).

This market distribution is also known as the Amazon effect. Amazon has been a very successful online store providing a convenient way for customers to purchase products online, then delivered direct to the customer. The irony of this is that Amazon has purchased Wholefoods in the USA, a premium grocery store aimed at top-end US consumers. This gives Amazon access to some of Wholefoods brands, which can now be purchased online, and also give Amazon on the ground distribution closer to its high-end customers.

Online sales have also enabled small producers to get access to customers directly. There are good examples in Japan, where the customers are technologically experienced, and the price of food is high enough to support small volume processing (Figure 12).



Figure 12: Small scale rice mill in Japan and branded rice products (Source: Author)

This particular farmer, due to the use of online marketing, had broken away from the mainstream rice selling channels and was going directly to the consumer (Tomoe Farm website, June 2018). The long-term viability of small-scale rice milling really depends on what is important to the customer, in Japan food safety is a very high priority, so concepts like this may well have a long-term place in the market.

4.5 Brand leverage

With SunRice’s existing strong consumer brands and worldwide network, there is an opportunity to add value to other parts of the rice farming system. This would increase the profitability of some of the underperforming enterprises within the rice farming system, such as wheat following rice in the rotation. If SunRice could add value to this space in the same way that it has with the milling and marketing of rice, it could significantly improve the profitability of the rice farming system, particularly from a water-use efficiency perspective.

This would make it more attractive to growers to plant rice, as the overall rice farming system would be more competitive. Some may argue that is not core business, but is it really that far removed from what SunRice already does with rice?

There are other areas where this principle could apply. SunRice could explore value adding of the by-products from the rice processing chain. Glambia is a former Irish dairy cooperative and is now a branded value-adding dairy processor in the USA. Glambia has made significant growth in sales in the United States, marketing sports drinks and powders made from a by-product of the milk processing sector. A similar example for SunRice could be the use of rice bran, a by-product of rice milling, when brown rice is processed into white rice. Rice bran has a very good nutrient value and with the use of innovative products could provide value for the customer and rice growers (Iman Zarei, Dustin G. Brown, Nora Jean Nealon and Elizabeth P. Ryan).

4.6 Provenance branding

Provenance branding is the opportunity to couple regional or area specific attributes to a product and brand. This could be a clean and green image of a country or a climate effect that gives a product differentiation from other similar produce. This is great for marketing and if it is important to customers, can help build a brand.

Provenance branding can come with some risk. Because continuity of supply is important, production shortfalls can be a risk to the brand's reputation. For example, if a brand has been promoted on the back of a particular area there is no geographical spread to even out the production risk. If there is no production in that area, the brand can't be supplied by product from another area and maintain customer base.

4.7 Case study - SunFoods USA

SunFoods is a wholly-owned subsidiary of SunRice Australia, in California, USA. It consists of a milling facility in Woodlands and has various brands and markets around the world. The Californian rice industry production system is very similar to the Australian rice industry, producing a high-quality medium grain rice and is our biggest competitor globally.

Musenmai rice is a pre-washed product that is used in the Japanese market. Culturally the Japanese way to cook rice is to wash the rice first to move any bran left behind on the surface.

This is because the small amount of bran left behind on the surface affects the way the rice cooks. SunFoods uses a process that removes the remaining bran. This rice is then sold and marketed as a washed rice product called Musenmai rice. This is a great example of a customer-focused branded product that extracts a premium over normal rice.

4.8 The need for capital

If a grower were to start a value-added branded product, substantial capital would be required to potentially build infrastructure, employ staff, hold stock and market the product. What is the best structure to do this?

The structure that is used must be set up in a way that achieves the desired outcome. As stated, businesses have life cycles and the capital structures may change depending on where in the cycle the business lies (Golis, C. 2002), and the structure must reflect desired outcomes at that point in time. At the start of SunRice's development, the objective was collective marketing for growers and thus a better rice paddy price. The structure was a co-operative and reflected the objectives of the time. Due to the huge success of SunRice, the objectives have changed, and the structure should change with it. This has happened in part with the development of the A and B class shareholders. However, the objectives of SunRice now have become somewhat lost in recent years, following the millennium drought and the failed Ebro take over. This has led to an identity crisis, and the objectives of the business need to be addressed by growers, both past and present.

What are SunRice's objectives? Better paddy prices, secure supply of paddy rice domestically and internationally, reduced risk, greater shareholder returns, realising the value of the shares, raising capital for growth, or building it to be sold? This is very important for both the direction and the policies that SunRice employs.

Considering where SunRice sits in its business cycle, the above question needs to be answered first, before the structure can be put in place. Past growers (B class shareholders) need to be mindful they have had the benefit of collective marketing rice over their rice growing lives. Current growers need to be mindful that past growers have funded the development of the industry and its success to date.

It would be idealistic to think more than one objective could be achieved at one time. There have been attempts to do this around the world and domestically, like Fonterra in New Zealand or Murray Goulburn in Australia. On the surface, it appears these structures have worked well, but these have had limitations and cracks have started to appear.

Where possible, maintaining control of the business is of critical importance. This is still the case when employing capital. A business does not want to be at the mercy of falling capital markets due to external factors out of its control. In the same way, the business should not be at risk of rising interest rate markets.

Conclusion

Brand value and unlocking it

Provided there is good management, the development of branded products will capture value further down the chain. This can come back in many forms depending on the objectives of the business. For example, it can come back in the form of the rice paddy price, dividends and/or share price value, either realised or unrealised. The real success of a brand is the price premium that can be achieved over and above a baseline price.

The whole picture

Where there is a futures market present branded product and futures markets are invariably linked to each other. They do not work in isolation from each other; futures markets are most effective when used by the merchants to facilitate the pricing and funding along the supply chain to the branded product. Futures markets are a tool to help trade and minimise risk, they are not a tool for profit. The real money is in owning the customer and having space in the subconscious mind of the consumer. The objective to use futures markets should be to assist the branded product's development and/or maintain the brand in the market place.

Rice pricing in an Australian context

Given SunRice's time in the market, the reputation and the relationship that they have built globally and domestically, a futures market would not be of value to our industry. A futures market for rice and or medium grain rice is not in the best interests of the Australian rice industry in its current form. A single referenced price would make it harder for SunRice to extract price premiums and trade rice globally.

A futures market has the potential to commoditise rice and is no value to the small and niche nature of the Australian rice industry. *A rice futures market is not justified or required to secure local supply; a higher rice price would achieve this result.* The increased price will ensure both water and land resources are used for rice production.

The rice industry should watch the evolution of these markets, with a brief to ensure that a futures market does not erode the competitive advantage of relationships that SunRice has developed, nurtured and maintained. The aim should be to stay in the niche market segments where the selling point is not the price but the product offering.

Small volume niche markets

The industry should continue to maintain and revitalise brands in existing and developing markets. This should be done by following consumer trends and continuing to develop and innovate new rice products demanded by consumers. Creating new customers in new and emerging market segments will be critical. To maintain continuity of supply to these markets, back-to-back, long-term contracts in some of the speciality markets should be employed to reduce risk to all parties. This should be the focus, as it has been in recent times.

The pool

The objective for industry should be to increase the pool returns through value-added branded rice products. Participation in the pool should be to ensure growers stay in the pool and do not participate in one year and not the next. There should be incentives and bonuses paid for constant supply into the pool; this is beneficial for both the producer and SunRice. This could be in the form of premiums paid related to the volume delivered over a three-year period. This will encourage a more constant supply and avoid both the peaks and the troughs that the industry has experienced over the last decade.

SunRice is in a difficult situation due to the fact that it is the buyer of last resort and by legislation, it must take the rice that is produced impacting on the returns of consistent growers. Variation in volumes of rice produced needs to be minimised and the pricing signals of the pool must reflect loyalty to the current pool system. Having the pool compete against contract prices one year and not the next is sending the wrong signals to growers. Although forward contracts have been used in the past to secure supply, with good intention, a loyalty-based price signal with premiums that reflect constant supply would limit growers from swapping some of their production from year to year.

As the Australian dollar has a significant impact on the price received by growers, risk management strategies should be employed to limit the exchange rate risk. Other initiatives, such as improving the profitability of the rice farming system should be utilised. This should be complimentary to both the grower's system and the expertise of SunRice. Further to this, as SunRice operates mills and distribution, any efficiencies to reduce the cost of the paddy processing will also benefit the paddy price.

The Australian rice industry needs to determine its future objectives as a whole industry. Once this is addressed, the direction will be more certain for all parties, including growers,

shareholders, employees and the rural communities in which SunRice operates. Collectively, the chance of success is much greater than that of individual growers attempting to develop branded products or predict global rice markets

Recommendations

A continued improvement in the performance of the Australian rice industry would be helped by the following changes:

- Finding the Australian volume of production sweet spot, that maximises market price and asset efficiency, and minimises market supply risk, will be key to the success of the industry future.
- Developing other sources of rice that are not marketed on provenance qualities, so they can be sourced from other areas in the event of production failures.
- Developing high end, niche, value-added customer focused products and contract them back-to-back with producers. Understand what is important to these customers and solve their problems.
- Identifying opportunities for value-added branded products from other crops in the rice farming system.
- Attempt to even out supply, by developing pricing premiums over time to incentivise consistent delivery to the pool. This would be a long-term strategy but could be implemented faster by retrospectively looking at growers' production in the past three to five years, and setting up pricing premiums around similar volumes of future production.

References

AYTM website, June 2018, as accessed at [https://aytm.com/blog/research-
junction/introduction-to-brand-strategy-part-1/](https://aytm.com/blog/research-
junction/introduction-to-brand-strategy-part-1/)

Clarete R. L., L. Adriano, and A. Esteban (September 2013). Rice Trade and Price Volatility: Implications on ASEAN and Global Food Security. CME Group Navigating Risk. A Brief Guide to the Derivative market place and its role in enabling economic growth

Dubey, A. 2012. A beginner's guide to investing

Futures Market—Expert Working Group Meeting, S. Rajaratnam School of International

Golis, C 2002, Enterprise & Venture capital 4th Edition A business builders and investor hand book

Hamilton, M. (March 2015) What makes Rice Futures Not Tick

Hamilton, M. (October 2015) The Story of Rice Futures and Open Market: The Past

Hamilton, M. 2012. A Position Paper on World Rice Futures. Submitted to the Asian Rice

Hamilton, M. When rice shakes the world

Iman Zarei, Dustin G. Brown, Nora Jean Nealon and Elizabeth P. Ryan. Rice Bran Metabolome Contains Amino Acids, Vitamins & Cofactors, and Phytochemicals with Medicinal and Nutritional Properties

IRRI Global rice trade

Japan Times website, June. 2017, as accessed at <http://www.japantimes.co.jp/news/2014/07/23/business/financial-markets/time-running-out-for-formal-listing-of-japanese-rice-futures/>

Kim, W. Chan. Mauborgne, Renée. 2005 *Blue Ocean Strategy: How To Create Uncontested Market Space And Make The Competition Irrelevant*. Boston, Mass: Harvard Business School Press, 2005

Kotler, P., Adam, S., Brown, L. & Armstrong, G. (2006) Principles of Marketing (3rd ed.)

Lewis, G. 1994. An illustrated History of the Riverina Rice Industry

LRI Monthly (March 2015) Risk in Rice: The benefits of a transparent rice market

Mckenzie, A. March 2012. ADB Sustainable Development Working Paper Series. Prefeasibility Study of an ASEAN Rice Market

Mohanty Dr., Aug. 10, 2018 Rice Today website, June. 2018, as accessed at <http://ricetoday.irri.org/trends-in-global-rice-trade/>

Mohanty, Dr. S. Singapore home of an international rice futures market. Irri (International Rice Research Institute

Myfoodbag N.Z. website, June 2017, as accessed at <https://www.myfoodbag.co.nz/>

Naughty But Rice, website, June 2017, as accessed at www.naughtybutrice.co.uk

Nikkei Asian Review website, June 2017, as accessed at <https://asia.nikkei.com/Japan-Update/Permanent-rice-future-listing-doomed-as-LDP-overpowers-farm-ministry>

Nikkei Asian Review, 27 July 17. Permanent rice-future listing doomed as LDP overpowers farm ministry

Rajaratnam, S. (March 2012) Expert Working Group Meeting on an 'Asian Rice Futures Market'

Rice Marketing Board NSW website, June 2017, as accessed at <http://www.rmbnsw.org.au/>

Rice To Riches, website, June 2017, as accessed at www.ricetoriches.com

Rice Today website, Jan-Mar 2015, Vol 14, No.1, as accessed at http://books.irri.org/RT14_1_content.pdf

Ricepedia website, Sept. 2012, as accessed at <http://ricepedia.org/australia>

Studies Centre for Non-Traditional Security Studies, Nanyang Technological University

SunRice Scheme Booklet Proposed Ebro Foods SA purchase of A and B class in SunRice

The History of the RMB's Capital Equity Schemes

The Marketing Mix website, June 2018, as accessed at <http://marketingmix.co.uk/>

Tomoe Farm website, June. 2018, as accessed at <http://tomoe-noujyou.heteml.jp>

Plain English Compendium Summary

Project Title:	Branding versus Hedging Adding value to a commodity like rice
Nuffield Australia Project No.:	1619
Scholar:	Drew Braithwaite
Organisation:	Independent Ag Pty. Ltd. "Red Hill" Farm 25e 730 Woodside Rd. Griffith NSW 2680
Phone:	+61427634232
Email:	dbraith@me.com
Objectives	<p>As a rule, grower-produced commodities are traded on market prices over which growers have little control. How do producers become price makers to maximise profits and or even out volatility? The objectives of this report are to:</p> <ol style="list-style-type: none">1. Evaluate and understand rice branded products and their consumption.2. Evaluate and understand rice futures markets and their potential use and interaction with branded rice products for the Australian Rice industry.
Background	<p>Rice growers in Australia (New South Wales) have planted their rice crop with only indicative pool pricing and with no real opportunity to lock in a price and thus a profit. This contrasts with the alternative pricing arrangements for cotton, where growers can make forward pricing decisions.</p>
Research	<p>Research in global rice markets was undertaken through international travel. The study investigated trade, milling, distribution, sourcing and marketing. Identify rice futures markets and the place for global rice production.</p>
Outcomes	<p>This report's primary aim is to strengthen the rice industry's place in the Australian and global rice trade, and to benefit its growers, employees, shareholders and the communities in which it operates.</p> <ul style="list-style-type: none">• Establish the purpose of SunRice and its relationship with growers and shareholders to secure the business moving forward. Continue to develop value added branded products for existing and new markets with a clear focus on the customer and customer trends.• Differentiate away from commodities market pricing to achieve a premium in the market place.• A rice futures market is not a suitable instrument to provide price signals to growers supplying the pool.• Where and when possible maintain credibility and relationships globally as a competitive advantage. Drive efficiencies along the value chain to reduce cost.• Reward loyalty to the pool so as to even out production variability.
Implications	<p>The industry needs to define its goals for the future, in line with emerging market trends and opportunities.</p>
Publications	<p>Presentation at the 2017 Nuffield National Conference, Darwin, NT, September 2017.</p>