# Stellenbosch 2023 Abstract Submission

## Title
Losing price signals in transmission: Observations of unintended consequences in an interconnected South African wine supply chain

## I want to submit an abstract for:
Conference Presentation

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## Keywords
price transmission, South Africa, wine supply chain, wine grape prices, wine prices, production, premiumisation

## Research Question
Despite efforts to strategically reposition the South African wine industry through premiumisation - quality over quality - yields are increasing. This paper investigates how price signals are lost in transmission.

## Methods
Regression analysis to determine the transmission of prices in the supply chain. Comparative accounting analysis to determine baseline and scenario profitability. Development of a framework for causality argument.

## Results
Weak price transmission from wine to bulk wine to grapes. Producers prioritising quantity over quality as yield x price drives profitability. Short term solutions resulting in long term structural issues.

## Abstract
Introduction
For many years the South African wine industry have been regulated in some way since its inception in 1659 right up to democratisation of South Africa in and deregulation of markets in 1996 (Vink et al, 2004). This has had a
profound impact on the South African wine industry. The price floors set by these regulations had the effect of driving quantity over quality thus having producers not give any thought to market influences and trends from consumers and merely focusing on getting maximum yield (Hira, 2013). Two decades after deregulation, an estimated 40% of Vinpro’s 3200 wine grape producers were running at a loss (Fin24, 2017). Among a number of other reasons, lack of timely replacement of vineyards, stagnation of wine grape prices and/or incremental increases in production cost also played a role. A potential approach to solve this lack of profitability at farm level is premiumisation – prioritising quality over quantity. Yet, despite a decline in total area over time, wine grape yields are higher than ever before, with no slowdown in production volumes observed. In this paper, the authors explore the reasons the break in transmission resulting in, on average, quantity being prioritised over quality at farm level despite premiumisation goals at industry level.

Objectives
This study has three objectives. Given that quality over quantity prioritisation is not observed in the data, determining where in the supply chain price signals are lost is the first objective. Secondly, after identifying the node where price signals are lost, a baseline and alternative scenario is used to determine the profitability impact of the status quo versus required price signals. Lastly, a framework for a causality argument will be developed, considering the relationship of both short-term and long-term causes and effects for the South African wine industry.

Materials and methods
Data for the period 2006-2021 is considered as the basis for this study, as 2006 was a turning point in planted hectares in the industry. Despite 11% fewer hectares in 2021 than in 2006, total wine grape production was 19% higher (SAWIS, 2022). To achieve the objectives of this study, this time period is deemed the most appropriate. Regression analyses are used to determine how price are transmitted along the wine chain. A comparative accounting analysis follows, informed by the output from the regression analysis, to determine the farm level profitability baseline and alternative scenario for the most recent season. The development of the framework for the causality argument will be done by incorporating the outcomes from the regression analysis and profitability impact analysis.

Expected results
• As a result of a weak transmission from wine prices to bulk wine prices, the strong price transmission from bulk wine to wine grape prices still results in a weak total price transmission in the wine supply chain.
• As most producers make investment production decisions based on income per hectare, both the unit price and the yield play a major role in their decisions.
• Due to a weak price transmission from bottled wine to wine grapes, producers tend to prioritise quantity over quality to remain profitable.
• The continued supply of large quantities of wine grapes suppresses returns, creating a vicious cycle of short-term solutions that causes long term problems.
• From the farm level alternative scenario profitability analysis, indications of the potential implications of alternative price transmissions can be derived.
• The development of a causality argument framework provides an opportunity to test the short-term and long-term causes and effect that could transpire in the industry.

Conclusion
Whilst wine prices have increased substantially over the last 15 years, slower growth in wine grape prices is observed, whilst the cost of inputs have risen sharply. As a result, despite the intent to strategically reposition the South African wine industry through premiumisation – prioritisation of quality over quantity – the industry, as a collective, is producing more wine grapes on fewer hectares. Vertically unintegrated/segregeted producers are dependent on the combination of yield and unit price to remain profitable, with inadequate price transmission from wine to bulk wine to wine grapes to prioritise quality over quantity. In this supply chain, the causes and effects are interconnected, resulting in a detrimental feedback loop in the supply chain that accelerates the impact of behaviour and decision-making throughout. More constructive dialogue and interaction between all role-players in the industry is required to align strategies that is practically implementable to ensure its sustainability.

References

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Losing price signals in transmission: Observations of unintended consequences in an interconnected South African wine supply chain

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References


