

# Cape Colony Commodity Prices

1889-1914

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Presentation

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- 2 The Economic History of the Cape Colony
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# Introduction



# Sentiment - Confidence and Uncertainty

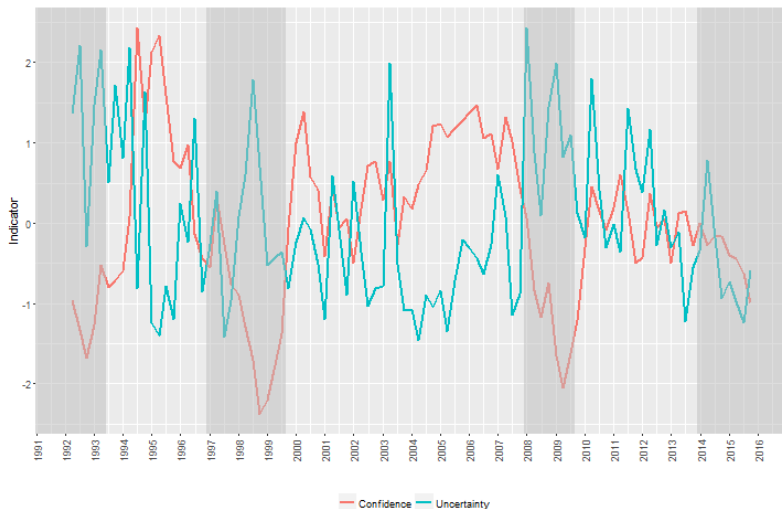


Figure 1: Sentiment plot



# Art Price Indices

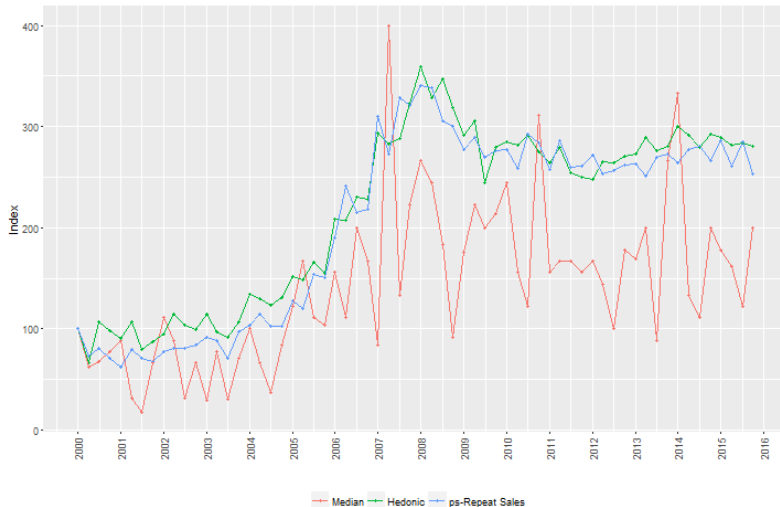


Figure 2: Art Price Indices  
Cape Colony Commodity Prices



# Historical Commodity Prices

Create historical (high-frequency) monthly wholesale price indices for agricultural commodities in the Cape Colony

Data Revolution in African Economic History

1889-1914 interesting period

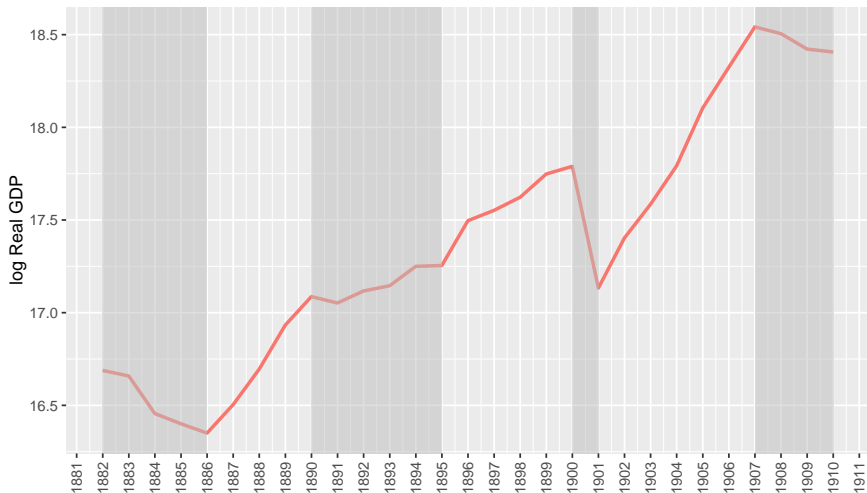
- Discovery of gold in the Witwatersrand (1886)
- Second South African War (1899-1902)
- Formation of the Union of South Africa (1910)
- Outbreak of WWI (1914)



# The Economic History of the Cape Colony

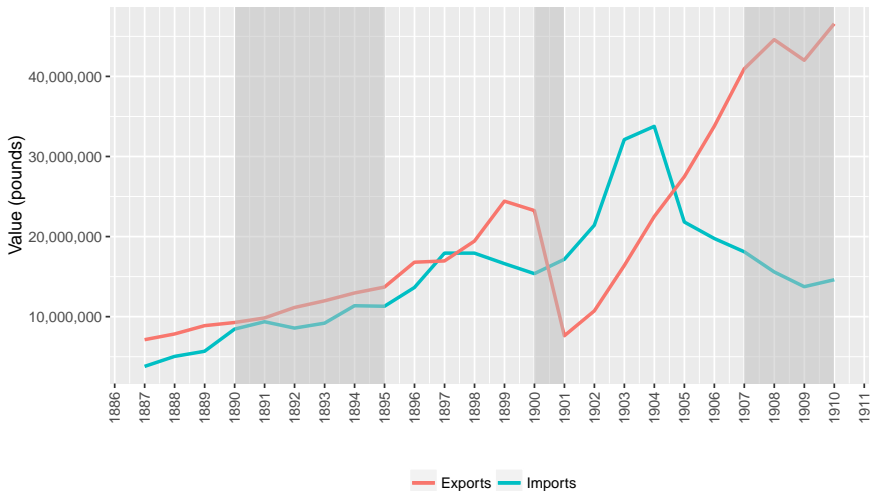


# Real GDP in the Cape Colony (1956-1909)





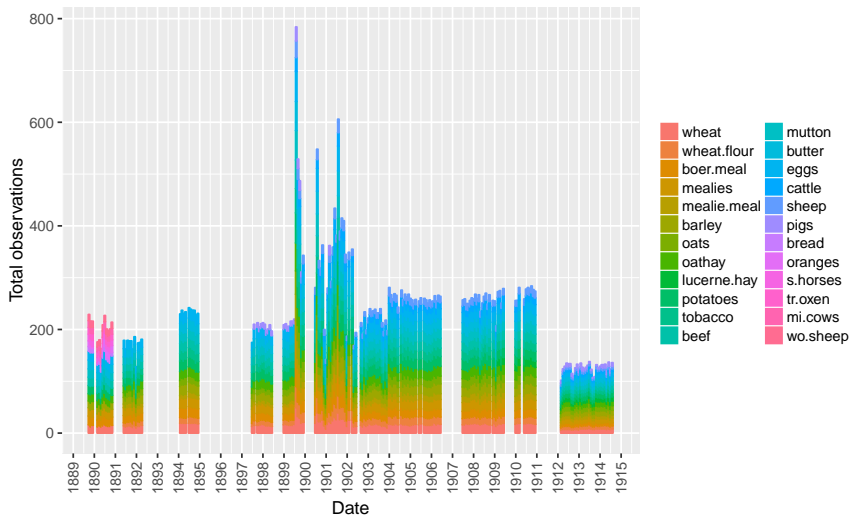
# Total Imports and Exports in the Cape Colony



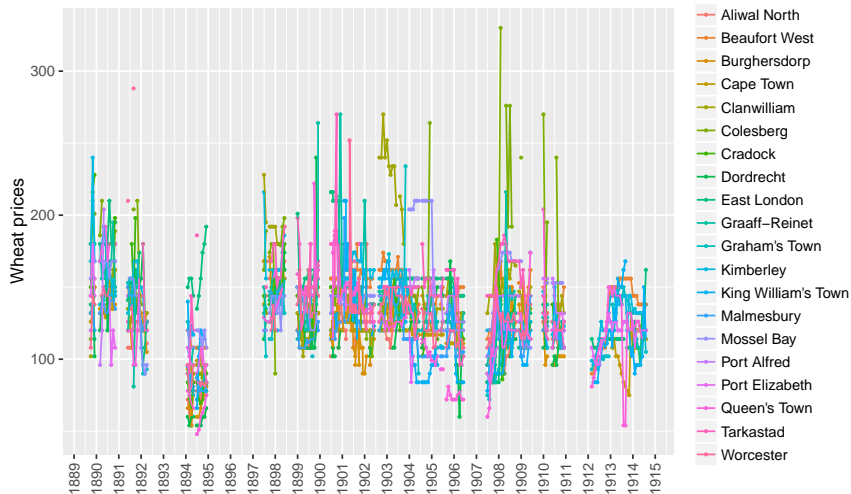
# The Data



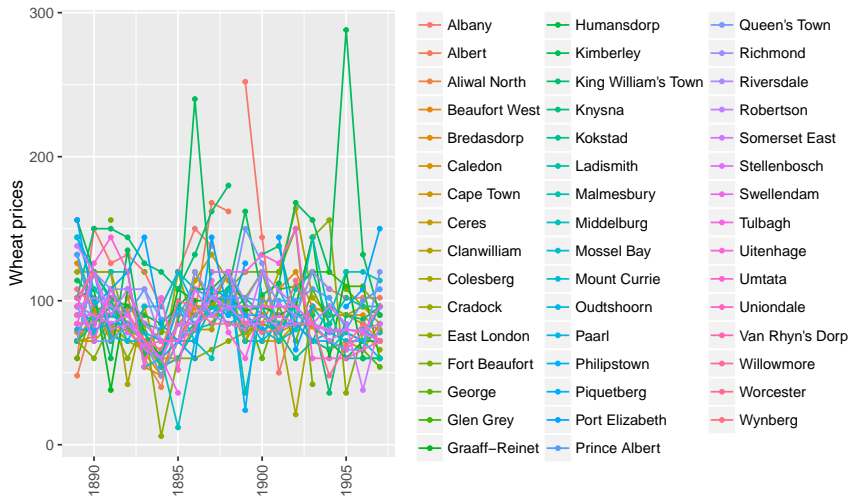
# Agricultural Journals: Total Observations



# Agricultural Journals: Monthly wheat prices by town



# Blue Books: Annual wheat prices by town



# Method



# Repeat Sales Method

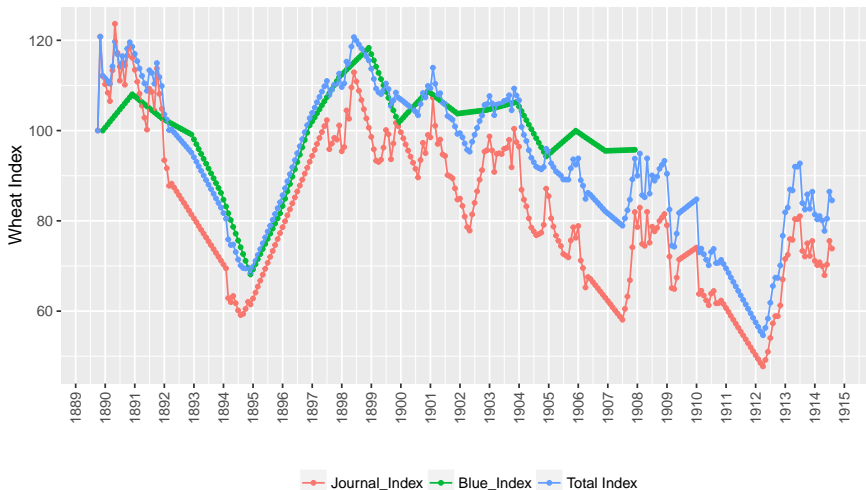
$$\ln \frac{P_{it}}{P_{is}} = \sum_{t=1}^T \beta_t D_{it} + u_{it}$$

**Table 1:** Repeat sales example with wheat prices

Date	Period	Beaufort.West	Cape.Town	Worcester	Index
Jun 1891	1	150		210	100.00
Jul 1891	2	135	138		88.83
Aug 1891	3	135	150		92.01
Sep 1891	4			288	138.94
Oct 1891	5		144		86.37
Nov 1891	6		144		84.45
Dec 1891	7	120	144		82.57
Jan 1892	8			144	70.38
Feb 1892	9		126	144	71.31
Mar 1892	10		126		71.31



# Wheat indices for the Cape Colony





# Aggregating commodity indices

**Table 2: Commodity classification**

Crops	Agri.Produce	Pastoral.Products	Livestock	Pastoral.Provisions	Agri.Provisions	Other.Prov
Wheat	Tobacco	Wool	Cattle	Beef	Bread	Tea
Mealies	Dried Fruit	Hides	Horses Mules & Asses	Mutton	Flour	Coffee
Barley	Wine	Skins	Sheep	Pork	Mealie Meal	Sugar
Oats	Brandy	Cheese	Pigs	Eggs	Boer Meal	Beer
Oathay		Fat & Tallow	Goats	Butter	Oatmeal	Rice
Rye		Soap	Fowls & Ducks	Milk		Salt
Peas & Beans						Candles
Potatoes						

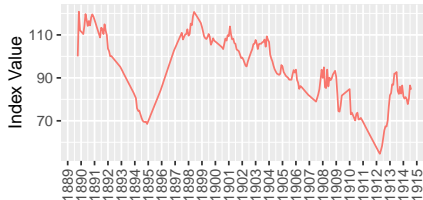


# Results

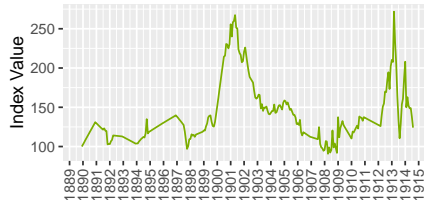


# Commodity Indices

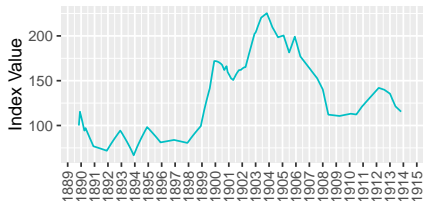
## Wheat Index



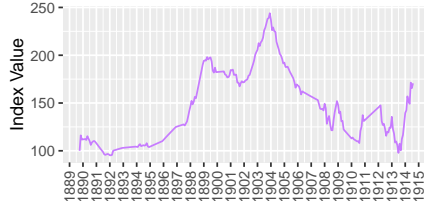
## Tobacco Index



## Cattle Index

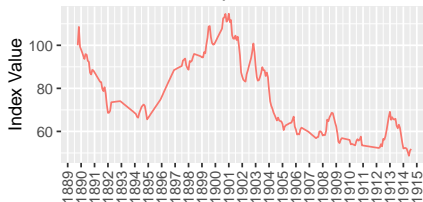


## Beef Index

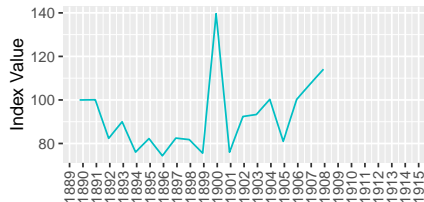


# Commodity Group Indices (1)

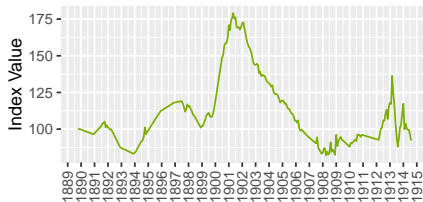
## Crops Index



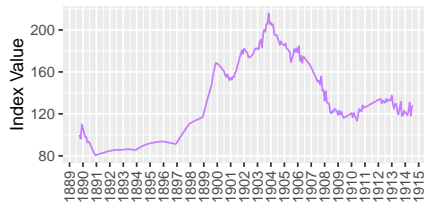
## Pastoral Index



## Produce Index

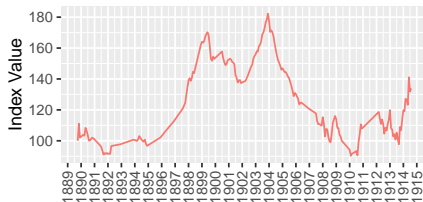


## Livestock Index

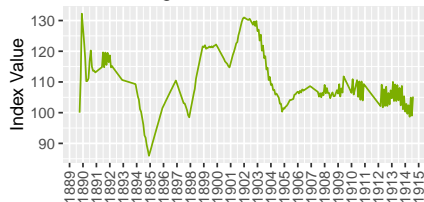


# Commodity Group Indices (2)

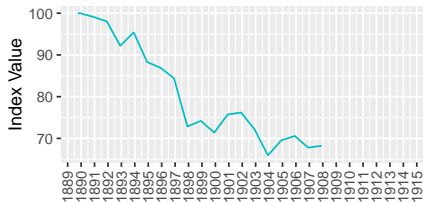
## Pastoral Provisions Index



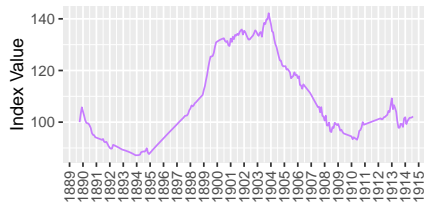
## Agri Provisions Index



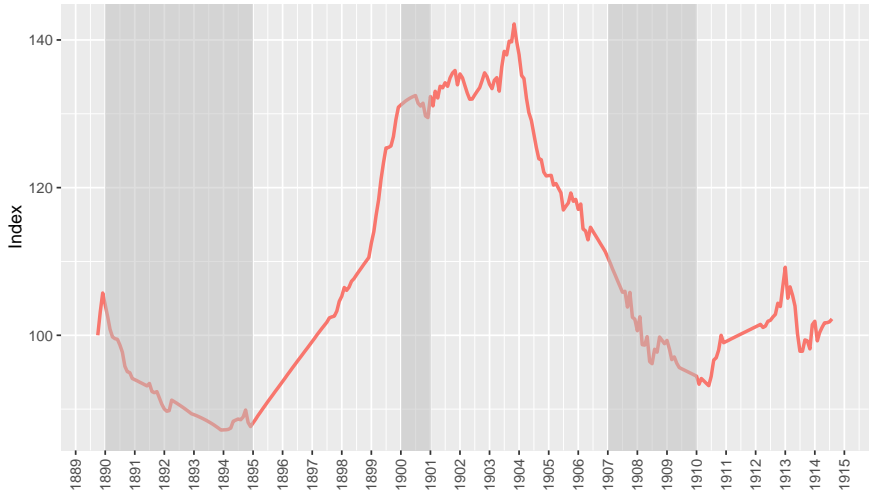
## Other Provisions Index



## Total Index



# Aggregate Commodity Index



# Comparisons: Cape retail price indices (1910=100)

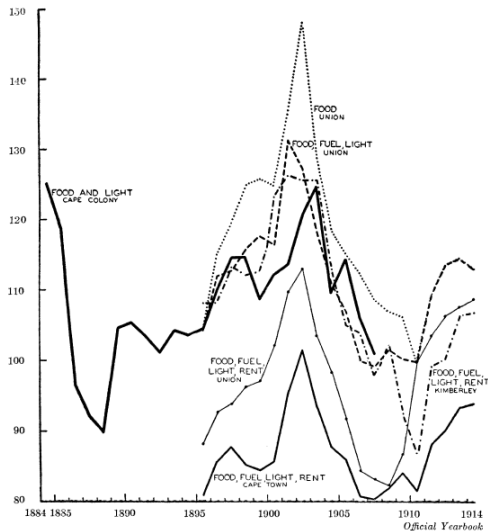
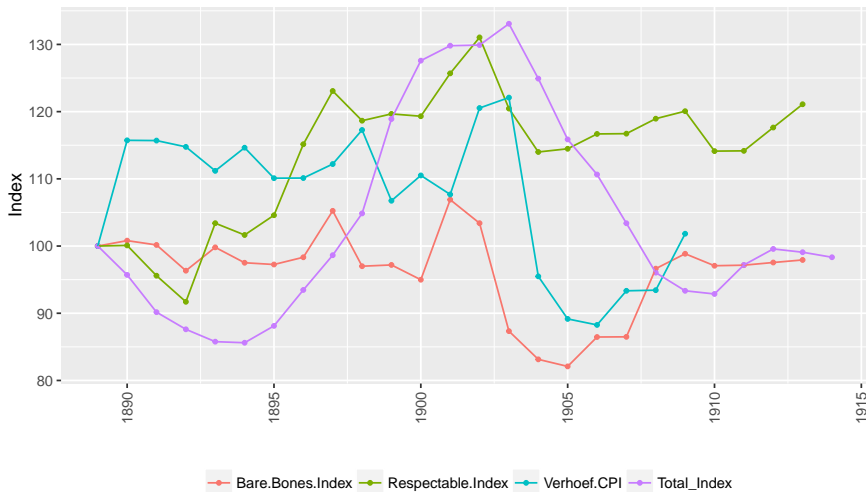


Figure 2: Gilbert (1922)

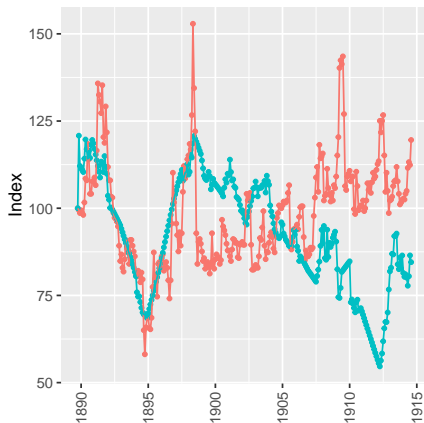


# Comparisons: CPI

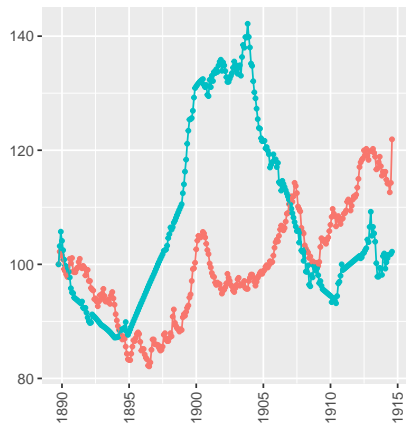




# Comparisons: UK Wholesale Prices



UK.Wheat.Index Cape.Wheat.Index



UK.Wholesale.Index Cape.Wholesale.Index

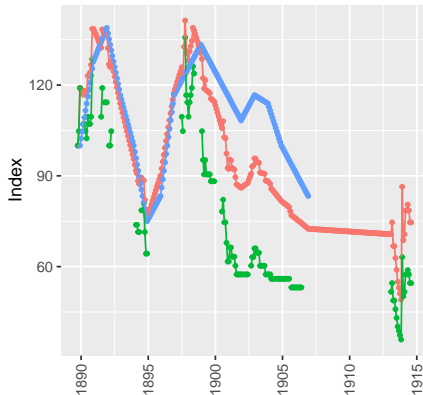


# Market Integration in the Cape Colony



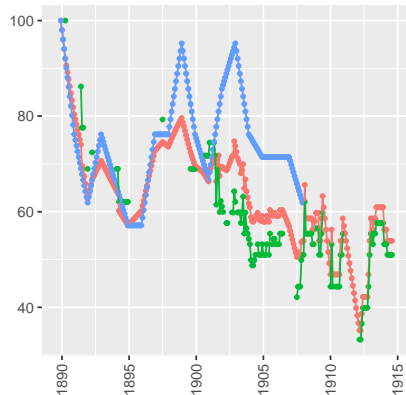
# Regional Integration

Cape Town Wheat



—●— Total\_Index 
 —●— Journal\_Index 
 —●— Blue\_Index

Beaufort West Wheat



—●— Total\_Index 
 —●— Journal\_Index 
 —●— Blue\_Index



# Pre-War Correlations

	Cape Town	Port Elizabeth	East London	Kimberley
Cape Town				
Port Elizabeth	0.35***			
East London	0.27***	-0.30***		
Kimberley	0.77***	0.38***	0.02	
Worcester	0.16**	0.38***	-0.39***	0.38***
Malmesbury	0.57***	0.51***	0.21**	0.68***
Beaufort West	0.21**	0.66***	-0.20**	0.32***
Mossel Bay	0.34***	0.47***	-0.33***	0.41***
Clanwilliam	-0.24**	-0.51***	0.49***	-0.13
Graham's Town	0.54***	0.37***	0.20**	0.65***
Port Alfred	0.13	0.41***	-0.08	0.39***
Graaff-Reinet	0.68***	0.39***	-0.06	0.59***
Cradock	0.24**	0.36***	0.05	0.51***
Colesberg	0.40***	0.39***	0.10	0.59***
King William's Town	0.61***	0.52***	0.05	0.66***
Queen's Town	0.66***	0.45***	-0.22**	0.50***
Burghersdorp	0.53***	0.60***	-0.25**	0.41***
Aliwal North	0.76***	0.48***	0.13	0.58***
Dordrecht	0.57***	0.31***	0.01	0.44***
Tarkastad	0.48***	0.28***	0.42***	0.28***



# Post-War Correlations

	Cape Town	Port Elizabeth	East London	Kimberley
Cape Town				
Port Elizabeth	0.34***			
East London	0.79***	0.32***		
Kimberley	0.72***	0.16*	0.52***	
Worcester+	0.97***	0.47***	0.82***	0.67***
Malmesbury+	0.94***	0.54***	0.74***	0.55***
Beaufort West	0.92***	0.43***	0.77***	0.64***
Mossel Bay+	0.80***	0.36***	0.87***	0.67***
Clanwilliam	0.89***	0.37***	0.62***	0.50***
Graham's Town	0.64***	0.73***	0.66***	0.36***
Port Alfred+	0.22**	0.30**	0.49***	0.12
Graaff-Reinet+	0.71***	0.43***	0.75***	0.70***
Cradock+	0.89***	0.58***	0.81***	0.46***
Colesberg+	0.80***	0.44***	0.91***	0.43***
King William's Town	0.79***	0.65***	0.67***	0.50***
Queen's Town	0.35***	0.46***	0.53***	-0.03
Burghersdorp	0.51***	0.14	0.49***	0.68***
Aliwal North	0.70***	0.56***	0.70***	0.46***
Dordrecht+	0.67***	0.40***	0.81***	0.51***
Tarkastad+	0.73***	0.34***	0.87***	0.71***

Notes: + indicates restricted sample (Dec 1910)



# Unit Root Tests - relative to Cape Town

	Pre-War	Post-War	Full Period
Port Elizabeth	-1.68	-2.17	-2.57
East London	-2.75	-1.48	-3.22*
Kimberley	-3.22*	-2.54	-2.76
Worcester+	-3.16*	-4.05**	-3.79**
Malmesbury+	-2.45	-3.37*	-2.67
Beaufort West	-1.99	-2.45	-2.96
Mossel Bay+	-2.22	-3.30*	-2.66
Clanwilliam	1.96	-3.54**	-2.22
Graham's Town	-2.12	-3.16*	-3.85**
Port Alfred+	-0.80	-3.27*	-2.55
Graaff-Reinet+	-3.26*	-2.66	-4.42**
Cradock+	-1.45	-2.12	-2.82
Colesberg+	-2.67	-2.31	-2.92
King William's Town	-2.29	-3.96**	-3.09
Queen's Town	-0.07	-2.43	-1.95
Burghersdorp	-3.32*	-2.61	-2.64
Aliwal North	-3.28*	-3.78**	-4.17**
Dordrecht+	-2.50	-2.12	-3.11
Tarkastad+	-2.77	-2.82	-2.80

Notes: + indicates restricted sample (Dec 1910)

