

**Democratising Price Risk Management for Coffee Growers** 

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## **Producing Coffee is a Risky Business**

Global commodity markets often dictate what price-taking farmers receive.

99% of the world's farmers do not have access to a simple and affordable tool to manage the risk of a price fall.

Current options are subprime:

- Inflexible/Restrictive forward contracts with traders
- Selling in \$USD (Basis Risk)
- Complexity





## Global demand for a solution is immediate and substantial. Volatility is front page news...



Brazil political uncertainty drives down **coffee price** Financial Times - 6 hours ago Your daily cup of coffee is becoming cheaper thanks to political uncertainty in Brazil. **Coffee prices** are languishing at 12-year lows, dragged ...



**Coffee prices** plunge as oversupply of beans flood the world market ... This is Money - 22 Aug 2018 The **price** of **coffee** has hit its lowest level in decades as an oversupply of beans floods the world market. A recent good harvest means that the ...



Vietnam's **coffee** growers face profit squeeze from bumper crop Financial Times - 21 Aug 2018 Vietnam's robusta coffee growers are anticipating a bumper crop this reason — good news ... "That's also putting pressure on the **coffee price**.".





Could a new risk management solution be created....one that's designed for farmers, rather than financiers?

3 Simple Requirements:

- 1. Affordable
- 2. Simple to Use
- 3. Low Risk

## Trading Price Risk vs Insuring Price Risk



Derivative	Insurance
High Risk (Margin Calls)	Low risk (Max = Premium)
Requires Liquidity	Global underwriters create the market
Basis Risk i.e. (FOREX)	Local risk priced in local currency
Minimum Size Farm (400ha)	Any size farm
Steep Learning Curve	Simple and familiar
Regulation/Difficult for Sales Partners	More routes to market i.e. Co-Ops



Stable uses local and independent indices around the world as a proxy, (with low Basis Risk: Geographic and Currency) to calculate the premium <u>and</u> the farmer claims.

This creates transparency in a coffee market (reduces opaque differentials)

Index Insurance reduces costs and automates the claims process.











Irish Food Board





Stable worked for 3 years with Mathematicians, Data Scientists, Actuaries and Universities all over the world to overcome '**systemic risk**' and build what was to become Stable.

This led to a formal collaboration with Liverpool University's 'Institute of Financial and Actuarial Mathematics'. (IFAM)







## Looking Back to Move forward..



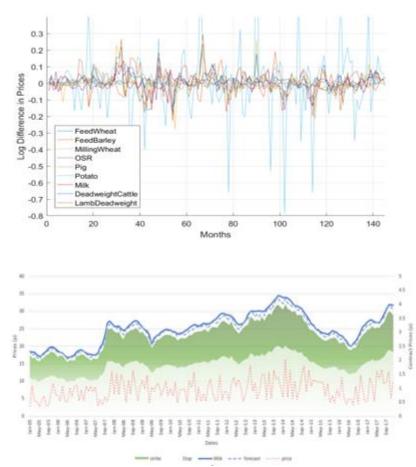
- In 1929, the writer A.G. Street coined the phrase 'Up Horn, Down Corn' to describe the diversification benefits of traditional mixed farming (i.e. cattle and coffee)
- If true, it might enable us to lower risk for insurers and make revenue insurance affordable for farmers.





## Inspired by AG Street. Built by Liverpool University

- 1. Using a HPC, we mapped the risks and correlations between commodity prices in minute detail.
- 2. We then built **pricing algorithms** that can accurately forecast the risk of a price fall.
- 3. The **portfolio algorithms** then dynamically spread the risk capital across all farm commodities to diversify risk, just like a traditional mixed farmer.
- Stable offers a '90%-50% Stop-Loss
   Insurance Contract' to reduce the premiums
   for farmers and limit potential losses for
   underwriters. (shown in shaded green right)





A Simple User Experience

## Stable's Index Insurance makes it simple for farmers



The farmer is asked just 3 Questions

It takes just 2 minutes.

- 1. Quantity to be protected?
- 2. Contract Duration
- 3. Excess level



#### LISTEN TO QUESTION

OK, great Andy! Within Arable please select a commodity from the options below.



#### \* From Q2 2019



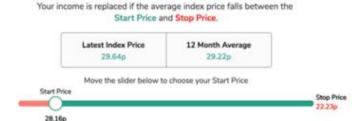
Farmer selects the calendar month(s) they wish to protect

i.e. the average Coffee price for the2nd half of 2019 (July-Dec)

or a single calendar month in the future







# Farmer selects Excess by moving the Start Price.

Price Fall: 90% to 50%

The farmers income is then protected if the index price moves beyond the Start Price selected by farmer.



#### Confirmation *of* Insurance

This insurance policy will protect you from: £3,228.00 potiential of loss

The cost to insure your farm from volatility is just: £43.22 per month (including tax)

Total amount payable over the 3 months is: £129.66

Your farm will be protected until the end of: June 2018

PROCEED

## Farmer Pays Premium each month via the Co-Op

A certificate of insurance is issued

The contract is between the Co-Op/farmer and the Lloyd's Underwriters (Stable is a broker 'MGA')



Do you have a Volatility Voucher?



**The Commercial Platform** 

## **The Current Team**



Richard Counsell (Farming)

UK/US (Chicago) Tech Entrepreneur and Somerset Farmer. Former Barclays Bank Entrepreneur of the Year and Nuffield Scholar



**Dr. Simon Wang (Quant)** PhD Actuarial Mathematics



**Edward Wakefield (Corporate Finance)** Former Managing Director Greenhill (US Investment Bank)



Ruth Foxe Blader (Insurtech/VC) Previously at PepsiCo and Allianz, Ruth is also a Director of Anthemis Group



**Charles Norton-Smith (Insurance)** Oxford graduate with 20 years experience running international insurance companies









anthemis group

## STABLE

YOU

## **Route to Market (Channel Partners)**

Stable acts as a global risk management platform.

Co-Ops, Industry Suppliers (seeds and chemicals) Banks and Merchants can aggregate (into one corporate policy) or sell to each individual farmer via chatbot

#### The Stable Value Chain

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RISK CARRYING	PRODUCT & PRICING	UNDERWRITING & OPERATIONS	IT DEVELOPMENT	CLAIMS MANAGEMENT	SALES & DISTRIBUTION
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STABLE



## From Coffee to Cows Milk..

Stable is currently working on farm indices in several international markets including:

UK, Australia, New Zealand, South Africa, Poland, Uruguay, Argentina, Sweden, Denmark, Ireland, Russia, Ukraine, Colombia & Brazil.

Corporates can also use our global platform to buy and manage their local risk in local currencies around the world.





The Future of Stable: a Risk Management Marketplace for Global Food and Farming

### 2019

**Stable Finance** (inputs/agtech/machinery) repayments that moves in line with crop prices & costs.

2020

**Stable IOT**: Remote Insurance connected to crop health.





richard@stableprice.com +44 (0) 203 858 0236 @fintechfarmer