Overview of the Cocoa Supply Chain and Associated Risks

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Abidjan
February 2014

Robin Dand

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• Currently working for Chicago Mercantile Exchange (CME)
• Recently ICCO World Cocoa Conference Co-ordinator and NYSE Liffe in Commodities
• Member of the Technical Committee of CRUK
• Earlier Chairman of FCC Contracts and Regulations Committee
• Author of “The International Cocoa Trade” first published in 1992, currently in its third edition
• Fifth decade of working in Cocoa...
Introduction

• Physical Cocoa Trade
  – Overview of trade flow of cocoa beans
  – Categories of main participants
  – Main terms on which cocoa is traded
  – Link between the Physical and Futures Markets

• Risk Management
  – Understanding the nature of risk
  – What are the main risks; and
  – How they can be mitigated

Concentrating on Beans, but...
Top 10 Grinding Nations, 2011/12

Source: ICCO
Role of the Physical Cocoa Trade

To expedite the sale of cocoa beans from the grower to the international market and users of the beans – the ‘Physical’ market

- Two main parts to the Physical market:
  - Pre-shipment, origin trade
    - Subject to national control and local trade practices
  - International trade
    - Standard contract terms compliant with international trade practices well understood law; and
    - Subject to arbitration services in the event of disagreements

Cocoa Bean Shipments – Generalised Trade Structure
Côte d’Ivoire – An Example of Pre-Shipment Trade Flow

International Trade Flow

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Standard and Particular Contract Terms

• Physical Contract Terms
  – *Standard* contract terms – Parties able to agree any contract terms, however
    • Freedom to contract bears responsibilities, hence the importance and need for *Standard Contract Terms*

• Futures Contract Terms
  – *Particular* contract terms – Parties not able to specify the main details, e.g.
    • Quality
    • Quantity
    • Delivery

Who issues Physical contracts and when should they be used?

• Two trade bodies:
  – Cocoa Merchants’ Association of America, Inc. (“CMAA”)
    • Based in New York
    • Subject to U.S. Food & Drug Administration
    • Contracts subject to the Laws of the State of New York
    • Issues specific contract forms

  – Federation of Cocoa Commerce, Ltd. (“FCC”)
    • Based in London
    • Contracts subject to the Law of England
    • Issues terms which apply to contracts incorporating them

• When to use CMAA or FCC terms:
  – Shipments to or transiting through USA – CMAA
  – Shipments to other destinations – FCC
International Trade – Basic Shipment Terms

Free on Board ("FOB")
Cost, Insurance & Freight ("CIF")
Ex dock
In/ex store

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Standard Weight Terms

Shipped Weight
Actual net weight of cocoa on loading:

Landed Weight
Weight of shipment on arrival, based on all the cocoa having arrived sound and full

In/ex Store Weight
Actual weight of the sound cocoa stored
## Contract Terms

<table>
<thead>
<tr>
<th>Delivery</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOB</strong></td>
<td></td>
</tr>
<tr>
<td>Shipping</td>
<td>✓</td>
</tr>
<tr>
<td>Shipped</td>
<td>✓</td>
</tr>
<tr>
<td>Landed</td>
<td>✓</td>
</tr>
<tr>
<td><strong>CIF</strong></td>
<td></td>
</tr>
<tr>
<td>Shipping</td>
<td>✓ ✓ ✓</td>
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<tr>
<td>Shipped</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>Landed</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>Store</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td><strong>Ex Dock</strong></td>
<td></td>
</tr>
<tr>
<td>Shipping</td>
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</tr>
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<td>Landed</td>
<td>✓</td>
</tr>
<tr>
<td>Store</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td><strong>In store</strong></td>
<td></td>
</tr>
<tr>
<td>Shipping</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>Shipped</td>
<td>n/a</td>
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<tr>
<td>Landed</td>
<td>✓ ✓ ✓</td>
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This contract is subject to the FCC Contract Rules for Cocoa Beans (which rules shall be deemed to incorporate the FCC Qualify Rules, the FCC Saling Rules, the FCC Phasing Rules and the FCC Arbitration and Appeal Rules) in force on the date of this contract.

Any changes made to this document shall not be deemed to have been accepted by us unless countersigned by an authorized signatory of Amanjaro Group.

We have this day SOLD TO YOU:

- **Quantity**: 200,000 (two hundred) metric tonne
- **Description**: Ghana main crop 11/12 cocoa beans
- **Quality**: Good Fermented
- **Shipment**: April 2012 - May 2012
- **Arbitration location**: London
- **Destination**: Amsterdam
- **Price**: Prior to be fixed by Mutual agreement
- **Payment**: FOB Less. Insured
- **Weight**: Net weight
- **Insurance**: To be paid by the seller
- **Freight**: FOB to be paid by the seller

Special Clauses: 150 defence for April shipment, 150 defence for May shipment

Would you please sign and return the attached copy of this letter as confirmation.

FOR AND ON BEHALF OF
Amanjaro Trading Limited
Use of Cocoa Futures Price in Physical Market

Connection between Physical and Futures Markets

Physical Market (Standard terms) / Futures Market (Particular terms)
RISK MANAGEMENT

- Risk Management in cocoa transactions
  - Understanding the nature of risk
  - What are the main risks; and
  - How they can be mitigated

Overview of Cocoa Supply Chain and associated Risks

Categories of Risk

Risk is exposure to unknown developments

“There are known knowns. These are things we know that we know. There are known unknowns. That is to say, there are things that we know we don't know. But there are also unknown unknowns. There are things we don't know we don't know.”

Donald Rumsfeld
What Donald meant...

**What we know**
1. Known knowns; e.g. Current price
2. Known unknowns; e.g. Forward price

**What we don’t know**
3. Unknown knowns; i.e. What we should know, but don’t
4. Unknown unknowns; e.g. ?

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**Main Areas of Risk**

- **Product**
- **Market**
- **Political**
- **People**

**Risk Categories**
- No risk
- Known risks
- Ignorance
- Black holes...

**Balance**

<table>
<thead>
<tr>
<th>Risk</th>
<th>Action</th>
</tr>
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<tbody>
<tr>
<td>1. No risk</td>
<td>1. Re-affirm</td>
</tr>
<tr>
<td>2. Known risks</td>
<td>2. Mitigate</td>
</tr>
<tr>
<td>3. Ignorance</td>
<td>3. Increase knowledge</td>
</tr>
<tr>
<td>4. Black holes</td>
<td>4. Vigilance &amp; Pray?</td>
</tr>
</tbody>
</table>
Market Risk – Make-up of Cocoa Bean Price

**Basis Price**

- Subject to bilateral discussions
- Private information – subject to known costs
- Private information – reflection of perceived supply and demand of Origin

**Futures Price**

- Published information – reflection of perceived supply and demand for all Cocoa

\[ \text{Futures Price} + \text{Basis Price} = \text{Outright Price} \]

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Market Risks – Some Examples

- Price movement of product
  - Outright
    - Basis
    - Structural
- Cash flow
  - Margin calls on futures
- Currency
  - Contract denominated in different currencies
- Credit and Counterparty risk
  - Price movements may cause your counterparty difficulties
- Interest rates
  - Affects carry costs and therefore forward prices
Product Risks – What could happen

- Weather
  - El Niño Southern Oscillation (ENSO) effect
- Pests and diseases
  - Affecting production
- Production
  - Less than expected
- Transport
  - Service adversely affected by roads disrupted by excessive rains
- Storage
  - Poor ventilation in damp conditions
- Quality
  - Health issues (unauthorised use of banned pesticides on farms)
  - Too high level of mould, parcel rejected by the buyer

Political Risks – Some Examples

- Exports banned
- Limits on where exports may go
- Currency restrictions imposed
- Imposition of taxes
- Imposition of nationalisation of industry
- War or coups
People Risks – Some Examples

- Fraud/unauthorised trading
- System malfunctions
- Lack of training
  - Not knowing the contracts
  - Physical Sales
  - Futures markets rules
  - Transport
  - Insurance
  - Storage
  - Supervision
  - Currency
  - Financing

Overview of Cocoa Supply Chain and associated Risks
Managing Risk

- Know your contracts
- Ensure that the company systems work; checks and balances
- Use the futures markets
- Know your counterparty
- Stay in touch with your counterparty
- Manage your physical contracts

Thank You!