The Multiple Dimensions of Risk in Coffee

Annual Conference
Forum on Agricultural Risk Management in Development

9-10 June 2011
Zurich, Switzerland

José Sette
Executive Director a.i.

SUMMARY

1. Types of risk
   - Physical and security risk
   - Quality / value risk
   - Performance (counterpart) risk
   - Price / market risk

2. The role of International Commodity Bodies
ICO composite indicator price
Monthly averages: January 1990 to April 2011

ICO composite indicator price
Daily: 1 October 2009 to 31 May 2011
Group indicator prices
Monthly averages: January 2007 to April 2011

Physical and Security Risk

- Physical loss or damage, theft and fraud
  - On plantation
  - During transportation
- Instruments
  - Insurance
  - Physical security: armed guards, convoys, satellite tracking
Quality / Value Risk

- Goods do not match description

Instruments

- Minimum quality standards (ICO Resolution 429 – voluntary application)
- ISO 9001
- Standard contracts (European Coffee Contract & Green Coffee Assoc. of NY)

Quality / Value Risk

- European Coffee Contract
  - Mechanisms for dispute resolution
  - ‘Even if the price is expressed "Free on Board port of shipment", the contract is in fact to be considered as an ill-defined Cost & Freight contract, the freight being for account of the buyers.’
  - Oligopsonistic structure
Performance (counterpart) Risk

- Risk that one of the parties to the transaction does not fulfill its obligations (default)

Instruments:
- Limit exposure to any one client/supplier
- Establish list of approved trading partners
- Establish strong administrative processes
- Monitor behaviour of trading partners

Price or Market Risk

- Market risk
- Currency risk
- Basis (differential) risk
Market Risk

- Price of market as a whole rises or falls to the detriment of owner, depending on type of transaction

- Instruments:
  - Price-to-be-fixed (PTBF) contracts
  - Margin calls – liquidity trap
    - Volume limits
    - Financial limits

Currency Risk

- Adverse movements in local currency vs US dollar

- Instruments:
  - Currency futures contracts
  - Forward contracts
ICO composite price (index Jan/05 = 100) in USD/lb and EUR/lb

Exchange rate (index Jan 2005 = 100) January 2000 to March 2011
Bolsa e taxa de câmbio
Atualizado: 23/05/2011

International Coffee Organization - www.ico.org

Source: Pharos Commodity Risk Mgt.

Correlação no período: -76,38%

Basis (Differential) Risk

- Changes in relations of the price of a specific quality of coffee to that of market as a whole
- Instruments:
  - ??????
Differentials: Arabica group indicators vs NY futures
Monthly: January 1990 to April 2011

Exports of Arabica coffee
Calendar years 2005 to 2010
### Differential: Robusta indicator and London futures
Monthly: January 1990 to April 2011

![Graph showing differential between Robusta indicator and London futures from January 1990 to April 2011.](image)

### Risk in a context of high price / high volatility

<table>
<thead>
<tr>
<th>Type of risk</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical / security</td>
<td>↑</td>
</tr>
<tr>
<td>Quality</td>
<td>Unch or ↑</td>
</tr>
<tr>
<td>Performance (counterpart)</td>
<td>↑</td>
</tr>
<tr>
<td>Market</td>
<td>↑</td>
</tr>
<tr>
<td>Currency</td>
<td>Unch</td>
</tr>
<tr>
<td>Basis (differential)</td>
<td>↑</td>
</tr>
</tbody>
</table>
THE ROLE OF ICBs

1. Risk management tools for smallholders

2. Coping strategies
   - Diversification
   - Promotion & market development

3. Market transparency

Risk management

Instruments for managing commodity risks include:
   - Stabilization programs
   - Marketing strategies involving the timing of sales and purchases
   - Long-term contracts with fixed prices
   - Forward contracts
   - Futures or options to hedge prices through commodity exchanges
Risk management in exporting countries

In order to successfully run risk management programmes in exporting countries in a way that contributes to reducing rural poverty, the work needs to be carried out in several stages:

- Strengthening institutional framework
- Training
- Development of domestic marketing (e.g. warehouse receipt system)
- Improving access to agricultural credit

Relevant projects:

- CFC/ICO/21FA: Coffee price risk management in Eastern and Southern Africa
- CFC/ICO/24FT: Study of the potential for commodity exchanges and other forms of market places in COMESA countries
- CFC/ICO/16: Strengthening the commercial, financial, management and business capacity of small coffee producers/exporters
- CFC/ICO/03FA: Coffee market development and trade promotion in Eastern and Southern Africa
- CFC/ICO/20: Pilot short- and medium-term finance to small-scale coffee farmers in Kenya
- CFC/ICO/20FT: Workshop on structured short- and medium-term finance to small-scale farmers in Africa
Coping strategies

Crop diversification (food crops)
- CFC/ICO/47: Raising income security of smallholder coffee farmers in Malawi and Tanzania through sustainable commodity diversification
- CFC/ICO/32: Diversification of production in marginal areas in the State of Veracruz, Mexico
- CFC/ICO/31: Reconversion of small coffee farms into self-sustainable agricultural family units in Ecuador

Promotion & Market Development: differentiation
- CFC/ICO/39: Enhancing the potential of gourmet coffee production in Central American countries
- CFC/ICO/42: Developing the potential of Gourmet Robusta coffee in Gabon and Togo
- CFC/ICO/45: Building capacity in coffee certification and verification for specialty coffee farmers in EAFCA countries
- CFC/ICO/01: Development of gourmet coffee potential
- CFC/ICO/05: Robusta quality and marketing improvement by optimal use of coffee terroirs
Coping strategies

- Promotion & Market Development: internal consumption

**World coffee consumption**

*Evolution 2000 – 2010*  
(in thousand bags)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2010*</th>
<th>Growth rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional markets</td>
<td>63 367</td>
<td>70 837</td>
<td>+1.1</td>
</tr>
<tr>
<td>Producing countries</td>
<td>26 385</td>
<td>40 280</td>
<td>+4.3</td>
</tr>
<tr>
<td>Emerging markets</td>
<td>15 750</td>
<td>22 883</td>
<td>+3.8</td>
</tr>
<tr>
<td>World total</td>
<td>105 502</td>
<td>134 000</td>
<td>+2.4</td>
</tr>
</tbody>
</table>

*Estimated
World coffee consumption: Producing countries
Evolution 2000 – 2010
(in thousand 60-kg bags)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2010*</th>
<th>Growth rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>26,385</td>
<td>40,283</td>
<td>+4.3</td>
</tr>
<tr>
<td>Brazil</td>
<td>13,075</td>
<td>18,945</td>
<td>+3.8</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1,664</td>
<td>3,333</td>
<td>+7.2</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>1,938</td>
<td>3,253</td>
<td>+5.3</td>
</tr>
<tr>
<td>Mexico</td>
<td>1,189</td>
<td>2,239</td>
<td>+6.5</td>
</tr>
<tr>
<td>India</td>
<td>938</td>
<td>1,400</td>
<td>+4.1</td>
</tr>
<tr>
<td>Others</td>
<td>7,581</td>
<td>11,113</td>
<td>+3.9</td>
</tr>
</tbody>
</table>

*Estimated

Market Transparency

- ICO Indicator Prices (daily)
- Monthly Trade Statistics (monthly)
- Green and Processed Coffee Trade Statistics (quarterly)
- Coffee Statistics (annual)
Market Transparency

- Monthly Market Report
- Economic Studies
  - Volatility
  - Global value chain
  - Fertilizer prices
  - Consumption in selected countries
  - Obstacles to consumption
  - Organic coffee
  - Other

International Coffee Organization - www.ico.org

---

Market Transparency

- Coffee: An Exporter’s Guide (collaboration with ITC/UNCTAD)
  - Book
  - Website: www.thecoffeeguide.org

International Coffee Organization - www.ico.org