UNCTAD Expert Meeting

"Enabling small commodity producers in developing countries to reach global markets"

Organized by UNCTAD Commodities Branch
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Structured finance: an innovative solution to integrate small producers in the supply chain

by

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structured finance: an innovative solution to integrate small producers in the supply chain

the expert meeting on enabling small commodity producers in developing countries to reach global markets

geneva, december 2006

alberto lara lópez
1. FIRA
2. Financial Agriculture System in Mexico
3. FIRA: Creating value solutions
4. Final Remarks
FIRA is the leading financial institution for agribusiness and fisheries in Mexico

• Trust Fund created by the Mexican Government 52 years ago.
• Operates as a second-tier bank that provides funding and credit guarantees to the banking system to finance agricultural and fisheries in Mexico.
• Public entity with private behavior and best market practices

Summarized Balance Sheet October 2006
(Million Dollars)

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<table>
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<tbody>
<tr>
<td><strong>Assets</strong></td>
<td>10,474.6</td>
</tr>
<tr>
<td>Financial Instruments</td>
<td>5,230.0</td>
</tr>
<tr>
<td>Loans</td>
<td>3,720.5</td>
</tr>
<tr>
<td>Other Assets</td>
<td>1,524.2</td>
</tr>
<tr>
<td><strong>Liabilities</strong></td>
<td>6,149.3</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td>4,325.6</td>
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</table>
FIRA’s strategy is based on four pillars

- Value proposal (Know your market) (know your client)
- Professional Management
- Financial Innovation
- Adequate Governance
The followed strategy has allowed FIRA to increase the annual credit flow at a two digit rate during the last six years.

FIRA’s total credit flow and credit to small producers** through commercial banks

FIRA’s Loans with Commercial Banks (Index)

FIRA credit flow to small producers through commercial banks

(Million dollars 2006)

Growth Rate 11.2%
2000-2006

Growth Rate 13.5%
2000-2006

Small producers are: PD1.- Producers whose annual income is not more than 1,000 times the minimum wage of the region where investments will be made and PD2.- Producers whose annual income is higher than 1,000 times but less than 3,000 times the minimum wage of the region where investments will be made.

* Estimated for 2006

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Agenda

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4. Final remarks
Agribusiness, rural and fishing sectors in Mexico

- Agribusiness has less price volatility and has become the sector’s driver.

- Also, there are some competitive advantages in highly export oriented products in agribusiness and fisheries sectors.
Agency problems arising from asymmetric information

- Deriving from asymmetric information a lender faces an adverse selection problem, specially in agricultural and fishing sectors dominated by small and medium size producers.

- Therefore gathering financial information is costly and difficult, since many of these producers do not keep a formal accounting. Thus, assessing the productive capability and financial strength in an adequate manner is expensive for a bank.

- Because of the involved risks, banks do not show an active lending activity to these sectors, concentrating their loan portfolios in other activities like manufacturing, housing and consumer lending. Therefore the lack of specialized knowledge about these sectors results in much higher risk perception by the banks than the actual risk: Thus, asymmetric information plays against access to credit markets for agricultural and fishing entrepreneurs.
Moral Hazard Problems and Transaction Costs

- Because of the weak enforcement of property rights in Mexico and to debt relief programs in the past, borrowers in some instances have had weak incentives to repay their loans.

- This has historically resulted in large non-performing loan portfolios and losses for banks. In addition, the lack of risk assessment capabilities in banks with respect to rural and fishing activities has not enabled them to conduct adequate monitoring to avoid such moral hazard problems.

- Because of the profile of small agricultural and fisheries' participants and their level of formality, screening is costly. In addition, an important part of the loans are small in size, and therefore, the cost of originating a loan is relatively high.

- The geographic coverage of the banking system in Mexico remains concentrated in urban areas. Highly dispersed and small clients make it difficult for banks to serve the agricultural and fishing sectors.
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FIRA’s activity is aimed at solving market failures/imperfections with a market approach and a clear vision of financial market development.

- **Transaction costs reduction**
- **Asymmetric information solutions**
- **Market making**
- **Value creation**
FIRA approached the trading companies and suppliers to offer an innovative solution: **Structured Finance**

Main Challenge faced by FIRA was finding solutions to the following aspects:

- Solving the adverse selection problem by finding a way to make screening effective and inexpensive.

- Reducing the transaction costs for the banking sector to finance commodities suppliers.

- Mitigating risk through diversification and adequate collateral that reduce moral hazard problems;

- Hedging price volatility and commercial risks in a way that can be easily understood and managed by a financial institution.

- Designing new products that could be easily understood, priced and managed by financial markets.
The solution that FIRA designed involved transferring experiences in securitization of accounts receivables

- FIRA put together a team of experts specialized in agriculture, fisheries, investment banking and legal aspects to find such a structure.

- The result was a facility that allowed:
  
  a) Trading companies to maintain the current relationship with suppliers while reducing the leverage of its balance sheet and its credit exposure,

  b) The commodity suppliers to receive loans in a timely manner and in sufficient amount that allowed them to reduce their financial expenses and

  c) The financial system to expand its investment opportunities by creating debt instruments that could be easily assessed and priced by banks, with reduced risk and transaction costs. A description of the facility and its rationales follows:
Structured finance: developing financial mechanisms adapted to client's needs

- ABS structures:
  - Account receivables (working capital loans)
  - Stock of commodities
- FIRA works as a structure agent
- FIRA provides Financing and enhancement
- Optimization of firm's balance sheet
- Liquidity to allow growth
- Strengthen the supply chain
- Timely credit for producers
- New financial solutions for more business opportunities

Value creation
Market making
Asymmetric information solutions
Transaction costs reduction
Market making
Value creation
Structured Financing was developed in three great strategic areas

- **Primary activity in Grains:** corn, sorghum, wheat, beans, etc.
- **Fishing:** aquaculture and capture of shrimp and tuna.
- **Inventories Financing:** sugar, corn, sorghum, wheat, coffee, soy, nut, orange juice, potatoes and cacao.

This allowed positioning FIRA like a developer of businesses and link between small producers and big global corporations. (Example: Nestlé - Small Producers of Cacao and Milk of Goat).
The vision is to leave individual financing and adopt an integral formula

Phase
- Primary Production
- Storing and Warehousing
- Transformation
- Sales Point

Products
- Primary Production
  - Non bank intermediaries
  - Schemes of title rights
  - Equipment with fixed rate
  - Financial leasing
- Storing and Warehousing
  - Inventory financing
  - CD’s report
  - Pignoratious
  - Schemes of CD’s titles.
- Transformation
  - Schemes of title credit rights
  - “off balance sheet” inventory financing
  - Factoring to suppliers
  - Financial leasing
- Sales Point
  - Suppliers development
  - Leasing
  - Credit Loan
  - Securitization

CD: Deposit Certificate
FIRA contributes to offer an integral solution of financing in the value chain for agricultural & fishing-food sector

- The practice of investment banking of FIRA takes elements from more advanced financial markets.
Example 1: In fishing sector, before FIRA’s financial innovation, shrimp producers were using costly suppliers’ credit

Mexico exports US$264.1 million of frozen shrimps per year to the US; this industry employs over 176,000 persons.

Financial terms before *structured credit*:

- **Feed companies**
  - 50% cash
  - 50% 7 month credit

- **Trader**
  - Working capital loans
  - Future delivery of shrimp

**Result:**

- High borrowing cost to shrimp producers
- Liquidity constraints to trading company and suppliers
- Thus limitations to industry growth
Example 1: Now FIRA’s structured finance facilities prove to be a vehicle that brings credit to small shrimp producers.

- Value chain integration through better supply chain mgmt.
- Reduction of transaction costs and risk via portfolio approach
- No subsidies; fee-based structuring service
- First loss enhancement by industry, market making enhancement by FIRA at a premium
- Transactions account for 5% of loan portfolio and growing
- Gradual decline in FIRA’s level of enhancement
Example 2: White Corn, Yellow Corn & Wheat Inventory financing solution

- This mechanism provides liquidity based on farmers’ inventories.
- This is a Repo operation, it is not a Credit operation, so it does not impact on financial statements.
- It does not affect firm’s credit lines with other financial institutions.
Example 2: Advantages of grains inventory financing

- Generates a financing instrument for value chains with participation of the private sector.
- There is a professional agent which handle and manage the collateral.
- The output inventory to market is ordered, diminishing the risk of low prices associated to seasonal excess of grain supply.
- It creates liquidity from inventories for grains consumer.
- For the Bank is a low risk transaction with low operation costs, which allows them to obtain an attractive return by operated volume.
Our structured finance instruments offer attractive investment opportunities in unexplored markets

- Value change integration
- Value creation for participants (income↑)
- Lower transaction costs
- Development financial market
- Development analytical capability financial intermediaries
In 2005 FIRA conducted operations for US$275 millions of structured financing.

<table>
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<tr>
<th>Primary Activity</th>
<th>$ Millions</th>
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<tr>
<td>Reports</td>
<td>117.7</td>
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<tr>
<td>Fishing and aquaculture</td>
<td>75.0</td>
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<tr>
<td>With non-bank intermediaries</td>
<td>23.8</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>316.5</strong></td>
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FIRA also participates in the derivatives market. This has allowed the Institution to offer value added products and to improve the portfolio profitability.

- Low income borrowers are perceived high risk; their size limits their access to risk management instruments.

- SWAPS let small producers have access to very competitive interest rates. Small amount credits (less than $10,000 dollars) can get fixed interest rate.

- The financial risk for FIRA does not increase since
  - The credit offered under fixed interest rate is hedged 100% with interest rate swaps (zero market risk)
  - Credit risk is minimized through a strict selection of counterparts
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FIRA develops new ways to finance small producers by structured finance facilities that can be understood and adopted by the financial market

- By structured finance, FIRA is able to coordinate stakeholders, align their incentives and distribute risks along the system with a positive impact on participants that result in an increased access to producers in obtaining loans.

- Structured-financed solutions can help overcome credit rationing. The key is to design efficient ways to leverage each participant's strengths, while creating the right incentives for them to mitigate risks and transaction costs.

- Through reducing transaction costs and giving solutions to asymmetric information, FIRA creates value added to its clients, including small commodity producers.
FIRA will continue to bring business solution mechanisms and innovative products benefiting a large number of producers.

- Through market making approach, the small producers are able to access sophisticated financial instruments, as “interest rate risk hedging”.

- This is an example of how a non-distorting effort of the public sector can promote development of a more inclusive financial sector that better serves small producers in accessing global markets.
Role of international organizations and UNCTAD in promoting an integrated market

• UNCTAD could help extend commerce, investment and development opportunities to Mexico by transmitting knowledge of successful cases, and by assisting commodity producers with solutions to problems derived from globalization and equal conditions integration.

• UNCTAD and other international organizations could coordinate technical cooperation, and promote investment flows to the agricultural sector through FIRA’s experience and network, facilitating small producers access to Global Markets and contributing to sustainable development.