



# Reforming Cocoa and Coffee Marketing in Liberia

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#### Purpose and Scope

- The purpose of this presentation and policy brief:
  - Examine the current status of the Liberian cocoa and coffee sectors
  - Delineate the outcomes and challenges faced by the producers/buyers when marketing their product
  - Propose policy options for the Government of Liberia to consider.
- The many similarities with the coffee sector allow us to draw conclusions that are equally applicable to both sectors







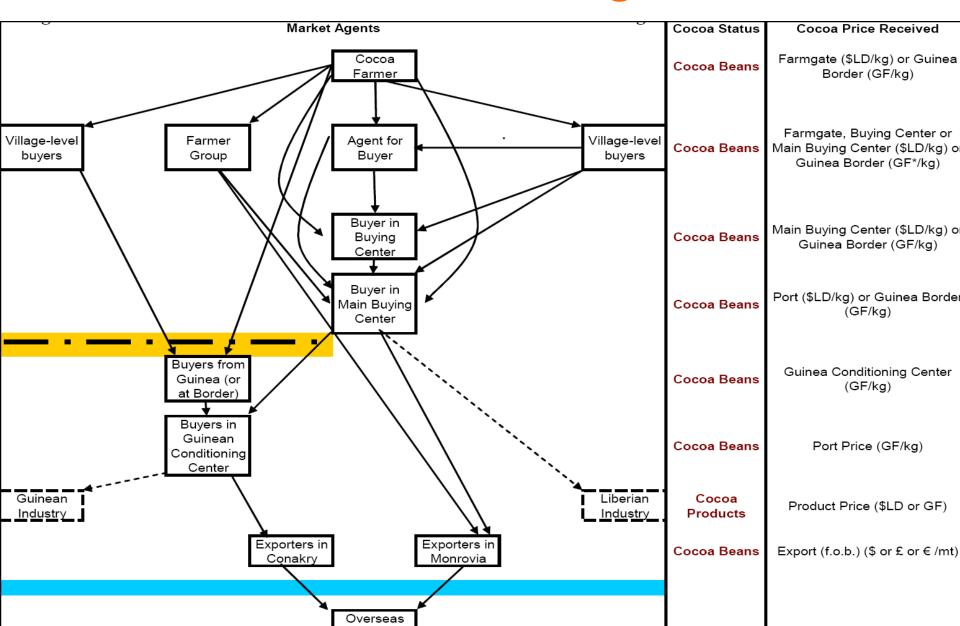
#### Market Efficiency

Townsend notes, if

"input and output markets are complete, so that no transactions are missed, and if there are so many buyers and sellers that none can alone influence prices, then the market outcome will be efficient"

- However, market efficiency in Africa is limited by:
  - Missing markets (e.g., financing)
  - Imperfect information (e.g., market information) and
  - ➤ High transaction costs

## Liberian Marketing Chain



Markets







## Information Asymmetries

#### Quantity

- Reported change over from English to Metric confusing to farmers
- Scales are owned by buyers
- No system of weight and measure certification

#### Quality

- Rudimentary cut test with no instrumental assistance
- No grades and standards at farmgate
- Visual assessment of humidity, mold, color, fermentation, bean size, foreign matter, etc.

#### Price

No formal channels of price dissemination in some countries







### Transactions costs, etc.

- Economic theory suggests that the difference between the farmgate and (pre-fob) port price is explained by transactions costs and other costs associated with procurement and delivery:
  - Transportation and Road Infrastructure
  - Market Power among Intermediaries
  - Scale Economies in Search, Assembly and Handling
  - Storage
  - Risk Premiums
  - Interest on Credit to Farmers
  - Capital Costs
  - Spoilage/shrinkage
  - Packaging
  - Currency Exchange
  - Fees and Taxes

# Marketing Margins

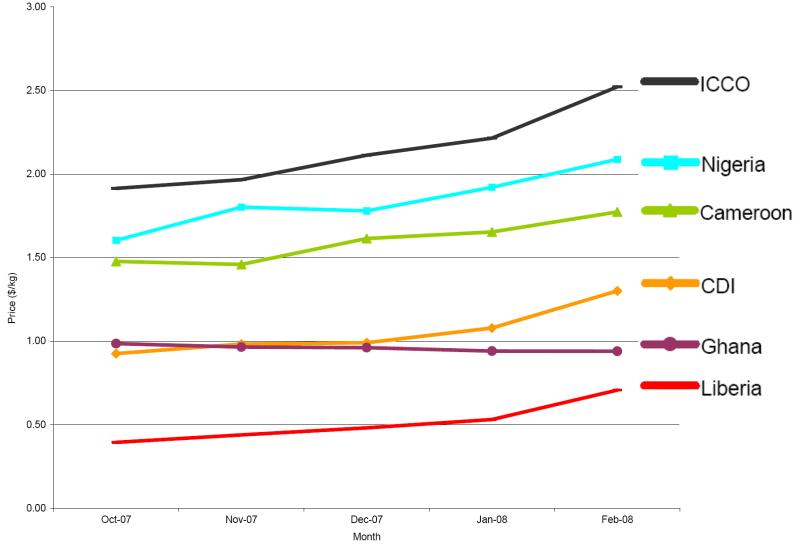
Table 3. Estimated Liberian Cocoa Marketing Margins during 2007/2008 Season.							
Item —		Oct	Nov	Dec	Jan	Avg.	
Itelli	USD \$ per ton						
ICCO price		1915	1967	2113	2216	2030	
Liberian origin discount		349	332	349	349	349	
CIF	1573	1566	1635	1764	1867	1681	
Freight (\$800/11.6mt per cont.) and insurance (2.5% CIF)	108	108	110	113	116	111	
FOB	1465	1458	1525	1651	1751	1570	
Freight shrinkage (2.5%)	39	39	41	44	47	42	
Export conditioning costs (fumigation, LPMC drying, container handling, weighing)		71	71	71	71	71	
Government taxes (2.5% FOB value to GOL)	37	36	38	41	44	39	
Quality certificate (1.4% FOB to BIVAC)		20	21	23	25	22	
Other Exporter Costs (Exporter Overheads (2.5% FOB), NPA, Docs EUR 1, misc.)		41	43	46	48	44	
LPMC royalty, export licence, export declaration	62	62	62	62	62	62	
Collection and transportation costs	155	155	155	155	155	155	
Profit margin and risk premium for Exporter		307	207	161	91	248	
Up-country buyer's price		726	887	1048	1210	887	
Farmgate cocoa price	395	439	482	532	708	511	
Percentage of FOB attributed to Farmer	27%	30%	32%	32%	40%	32%	
Percentage of FOB attributed to Buyer		20%	27%	31%	29%	24%	
Percentage of FOB attributed to Exporter		42%	34%	29%	24%	36%	
Percentage of FOB attributed to LPMC		4.2%	4.0%	3.7%	3.5%	3.9%	
Percentage of FOB attributed to Government		2.5%	2.5%	2.5%	2.5%	2.5%	
Percentage of FOB attributed to BIVAC	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	
	Icco price Liberian origin discount CIF  Freight (\$800/11.6mt per cont.) and insurance (2.5% CIF)  FOB  Freight shrinkage (2.5%)  Export conditioning costs (fumigation, LPMC drying, container handling, weighing)  Government taxes (2.5% FOB value to GOL)  Quality certificate (1.4% FOB to BIVAC)  Other Exporter Costs (Exporter Overheads (2.5% FOB), NPA, Docs EUR 1, misc.)  LPMC royalty, export licence, export declaration  Collection and transportation costs  Profit margin and risk premium for Exporter  Up-country buyer's price  Farmgate cocoa price  Percentage of FOB attributed to Farmer  Percentage of FOB attributed to Exporter  Percentage of FOB attributed to Exporter  Percentage of FOB attributed to LPMC  Percentage of FOB attributed to Government	Sep           ICCO price         1938           Liberian origin discount         365           CIF         1573           Freight (\$800/11.6mt per cont.) and insurance (2.5% CIF)         108           FOB         1465           Freight shrinkage (2.5%)         39           Export conditioning costs (fumigation, LPMC drying, container handling, weighing)         71           Government taxes (2.5% FOB value to GOL)         37           Quality certificate (1.4% FOB to BIVAC)         21           Other Exporter Costs (Exporter Overheads (2.5% FOB), NPA, Docs EUR 1, misc.)         41           LPMC royalty, export licence, export declaration         62           Collection and transportation costs         155           Profit margin and risk premium for Exporter         475           Up-country buyer's price         565           Farmgate cocoa price         395           Percentage of FOB attributed to Farmer         27%           Percentage of FOB attributed to Exporter         53%           Percentage of FOB attributed to Exporter         53%           Percentage of FOB attributed to Covernment         2.5%	Item         Sep         Oct           ICCO price         1938         1915           Liberian origin discount         365         349           CIF         1573         1566           Freight (\$800/11.6mt per cont.) and insurance (2.5% CIF)         108         108           FOB         1465         1458           Freight shrinkage (2.5%)         39         39           Export conditioning costs (fumigation, LPMC drying, container handling, weighing)         71         71           Government taxes (2.5% FOB value to GOL)         37         36           Quality certificate (1.4% FOB to BIVAC)         21         20           Other Exporter Costs (Exporter Overheads (2.5% FOB), NPA, Does EUR 1, misc.)         41         41           LPMC royalty, export licence, export declaration         62         62           Collection and transportation costs         155         155           Profit margin and risk premium for Exporter         475         307           Up-country buyer's price         565         726           Farmgate cocoa price         395         439           Percentage of FOB attributed to Farmer         27%         30%           Percentage of FOB attributed to Exporter         53%         42%	Item         Sep         Oct         Nov           ICCO price         1938         1915         1967           Liberian origin discount         365         349         332           CIF         1573         1566         1635           Freight (\$800/11.6mt per cont.) and insurance (2.5% CIF)         108         108         110           FOB         1465         1458         1525           Freight shrinkage (2.5%)         39         39         41           Export conditioning costs (fumigation, LPMC drying, container handling, weighing)         71         71         71           Government taxes (2.5% FOB value to GOL)         37         36         38           Quality certificate (1.4% FOB to BIVAC)         21         20         21           Other Exporter Costs (Exporter Overheads (2.5% FOB), NPA, Docs EUR 1, misc.)         41         41         43           LPMC royalty, export licence, export declaration         62         62         62           Collection and transportation costs         155         155         155           Profit margin and risk premium for Exporter         475         307         207           Up-country buyer's price         565         726         887           Farmgate cocoa price </td <td>Item         Sep         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# 2007/08 Average Farmgate Cocoa Prices



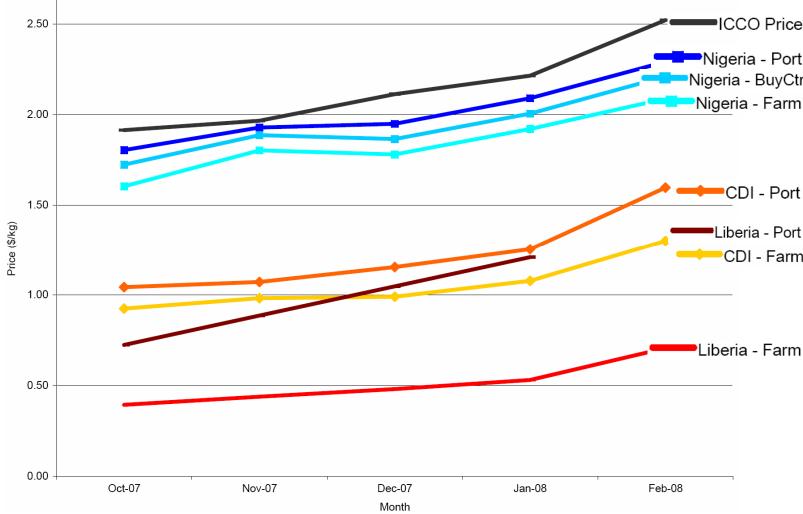


# Farmgate, Buying Center and Port



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#### Liberian Cocoa Market Efficiency Issues



- Barriers to Entry
- Infrastructure (farm to market roads, warehousing, and communications)
- Financing for Exporters, Agents and Farmers
- Measurement Standards
- Quantity
- Competition / Collusion
- Price Transmission
- Market Information
- Quality Differentiation







### **Barriers to Entry**

- Political
- Capital
  - Warehousing, transportation, credit, purchasing, scale economies, post-harvest processing...
- Contracting
  - "Contrat de Fidélité"
- 'Reverse' predatory pricing?
  - Well and cheaply financed able to price other traders out of the market





















#### Warehousing





Infrastructure







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#### Communications

#### Infrastructure

Statistiques de la BCC

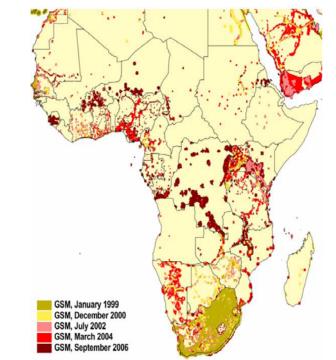
Normes d'exportation Campagnes / Récoltes Structure indicative Coûts

Mécanisme Fiscalité et Parafiscalité

Qualité sanitaire Législations



Figure 1: GSM Cell Phone Expansion in Sub-Saharan Africa, 1999 - 2006







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## Financing

- Limited access to international sources of financing hinders local exporting capacity
  - ➤ Local capital costs typically range from 14-25% versus 3-5% for borrowers with access to international markets
- Significant limitation for agents up-country who are forced to acquire financing from the exporters
  - Port-based capital filters down to local buyers with high degree of risk
  - Repayment cycle can be extremely short leading to incentive to limit search costs which may adversely affect quality

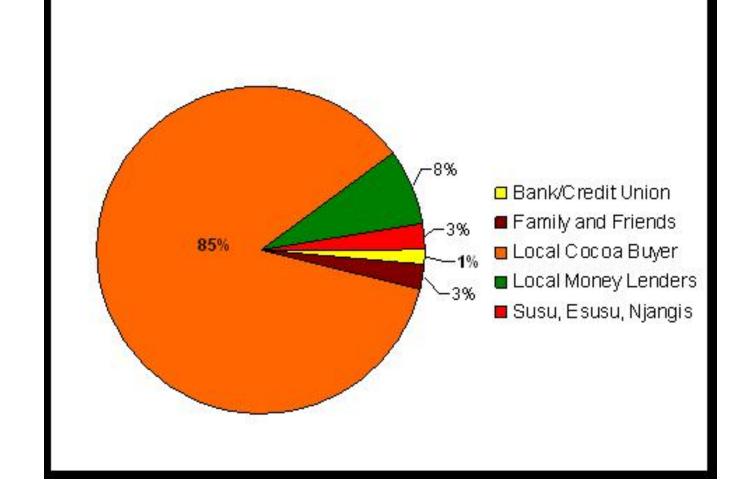




### Farmer Credit: Sources in Liberia



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#### Measurement Standards

- With de facto liberalization came the loss of official certification of weights and measures (e.g., balances) by Government
- Change of units of trade (kg vs. lb) which has confused farmgate transactions
- A potential solution is annual certification of the weigh balances and scales used to conduct trade as a licensing requirement of all agents downstream from the farmgate









### Quantity: Lot Size and Discounts

In Liberia, 70% of transactions involved < 100kg

Month	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Qty Range
	0.18%	0.36%	1.07%	5.16%	16.37%	21%	21.17%	4.63%	
lug	(n=1)	(n=2)	(n=6)	(n=29)	(n=92)	(n=118)	(n=119)	(n=26)	001-100 kg
Marketing		0.18%	0.18%	1.6%	1.96%	7.12%	9.43%	1.25%	
ž		(n=1)	(n=1)	(n=9)	(n=11)	(n=40)	(n=53)	(n=7)	101-200 kg
М̈́				0.71%	1.42%	1.25%	1.6%	0.71%	
Cocoa				(n=4)	(n=8)	(n=7)	(n=9)	(n=4)	201-300 kg
Š						0.36%	0.53%		
ŭ						(n=2)	(n=3)		301-500 kg
					0.18%	1.07%	0.36%	0.18%	
					(n=1)	(n=6)	(n=2)	(n=1)	500+ kg

#### In Cameroon -

Economies of scale matter as premiums accrue to large scale transactions

LIFFE Regression						
	(FCFA)					
Center	South	Southwest				
-214.0	-154.3	-877.5				
-14.3	-10.3	-58.5				
-7.1	-5.1	-29.3				
-4.8	-3.4	-19.5				
-3.6	-2.6	-14.6				
-2.9	-2.1	-11.7				
-2.4	-1.7	-9.8				
-2.0	-1.5	-8.4				
-1.8	-1.3	-7.3				
-1.6	-1.1	-6.5				
-1.4	-1.0	-5.9				
	-214.0 -14.3 -7.1 -4.8 -3.6 -2.9 -2.4 -2.0 -1.8 -1.6	Center South  -214.0 -154.3 -14.3 -10.3 -7.1 -5.1 -4.8 -3.4 -3.6 -2.6 -2.9 -2.1 -2.4 -1.7 -2.0 -1.5 -1.8 -1.3 -1.6 -1.1				



# Competition / Collusion



- Legal Environment
- Collusion among Buyers/Traders
- Consolidation and Concentration
- Remoteness of Farmers
- Cross-cutting Issues:
  - Information asymmetries
  - Capital constraints
- Farmer Groups
  - Pro-competitive effect
  - "Competitive yardstick"

"Ants united will drag even a dead elephant to their abode" - Uganda









#### **Price Transmission**

 Determined how price variability, transactions costs and institutional arrangements downstream affect market outcomes at the farmgate in Liberia

World Price  $\rightarrow$  Exporter  $\rightarrow$  Trader  $\rightarrow$  Buyer  $\rightarrow$  Farmer

 Low transmission found in Liberia suggests that world price signals are not being received by farmers



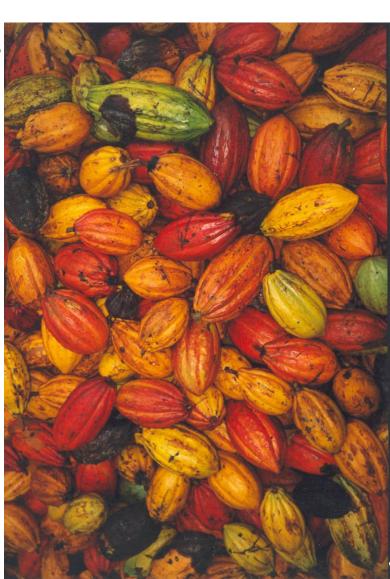


## **Quality Differentiation**

- Quality Characteristics
  - Humidity
  - Mold
  - Fermentation
  - Bean Size
  - Foreign Matter
  - Smokiness
  - Free Fatty Acids









#### **Quality Differentiation**

- Inconsistent Grading
- Lack of Accurate
   Quality Assessment
   Capacity from
   Farmgate to Port
- Discounts
  - Reason
  - Magnitude
  - Loss to Farmers















## Quality

- Liberian cocoa has built a reputation for poor quality
- Improper post-harvest processing and handling is pervasive and has led to significant origin discounts on the world market
- Low quality has been institutionalized as the LPMC created a market for "fair average quality" cocoa that bears no resemblance to industry or international standards.
  - ➤ This situation has been perpetuated further by the operation of Guinean traders who purchase sub-grade cocoa and the influx of poorly handled Ivorian cocoa.
- There is a lack of incentives throughout the domestic marketing chain to:
  - Properly produce and post-harvest process quality cocoa
  - Ascertain the actual grade of cocoa at the farmgate
  - Maintain cocoa quality during procurement
  - Purchase, with a premium at every link in the marketing chain, quality cocoa.





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### Cooperatives

- In 2007/08, it is estimated that one-sixth of Liberian cocoa production was channeled through cooperatives.
- Many of these cooperatives were originally established in the 1980's and reinvigorated after 2003.
- Though legally recognized as a "cooperative" by certification and name, cooperatives do not appear to be working on behalf of their members.
  - Generally, no services are provided to members, transparency among the leadership is lacking and the premium, theoretically derived from collective bargaining, is not being passed back to the membership.







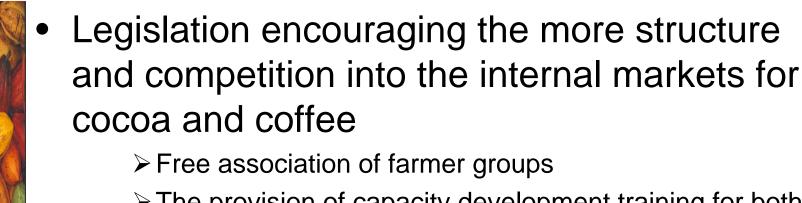


# Farmer Organizations

- Farmer marketing groups are currently being promoted as grass roots collective bargaining approach. Potential services include:
  - Aggregating
  - Grading
  - Selling
  - Providing market information
  - Purchasing of inputs
  - Savings
  - Industry representation



# Policy Recommendations: Farmer Organizations and Cooperatives



- ➤ The provision of capacity development training for both farmer marketing groups and marketing cooperatives
- Cooperative law in Liberia needs to be reexamined to ensure that cooperatives are acting in the best interest of their members and in a transparent way.









# Policy Recommendations: Market Information

- Prices from the various buying points along the supply chain:
  - > Farmgate
  - Upcountry buying centers
  - > FOB Monrovia
  - ➤ CIF Europe

should be collected and publicly disseminated as a means of ensuring adequate price competition.









- LPMC's role as a parastatal marketing board in the cocoa and coffee sector should be reviewed.
- A reformed government institution that regulates trade needs to be established. The potential roles of such an institution would be to:
  - Register buyers and issue pan-territorial purchase licenses, discontinuing district-specific licensing as a means of territorial control. Licenses would require:
    - Certification of the buying agent's knowledge of the trade as a requirement for licensing.
    - Annual certification of the weigh balances and scales used to conduct trade as a licensing requirement.







# Policy Recommendations: LPMC, continued

- Other potential roles of such an reformed government institution would be to:
  - Set and enforce quality standards that meet industry benchmarks and offering training to all market agents, especially farmer marketing groups, cooperatives and others.
  - Provide oversight on a bonded warehouse receipts financing arrangement.
  - Additionally, this institution could promote the Liberian cocoa and coffee sector domestically and internationally.







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#### Policy Recommendations: Quality

- To improve the quality of cocoa reaching Monrovia, cocoa buyers at all levels of the supply chain require:
  - Training on the best practices for storage, handling, and fumigation
  - Information concerning minimum standards and the accepted means for evaluating and grading export qualities based on industry norms in line with other West African countries and enforced by the reformed institution
- A reliable and internationally accepted export certification system needs to be put in place.





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#### Policy Recommendations: Legal

 Need to train current and potential agents in the cocoa trade on international contracting requirements and examine legal constraints to developing cocoa and coffee business opportunities

 Provision of a legal and enforceable framework governing commerce and the provision of effective and timely arbitration are both crucial for instilling investment confidence in the business community





## Measuring Progress

- Rise in quality and elimination of discount on world market
- Decline in farm to market price spreads due to increases in farmgate price
- Marketing chain should be competitive based on concentration at nodes, marketing margins (relative within chain and across countries) and farmgate prices







### **Implementation**

- Requires intense participation and partnering among public and private sector value chain stakeholders
- Local institutions need to be strengthened and clear mandates defined
- Recognition that developing the value chain is a gradual process with defined short, medium and long term objectives and goals
- International expertise can assist in this process but should not take "ownership"

