Impact of the Regulatory Environment on Malian Grain Markets:
Some Behavioral Consequences for Traders and Transporters

by

Philip STEFFEN

in collaboration with Nango DEMBÉLÉ

Working Paper No. 90-04
October 1990

MSU/AID Cooperative Agreement on Food Security in Africa
(No. DAN-1190-A-00-4092-00)
Foreword

The motivation for this Working Paper comes from our observations over the past few years of first, the divergence between the intent of a particular regulation and its impact in practice, including the difficulty for policy makers to ensure implementation of new rules by subordinates and the differential enforcement of regulations across regions, and second, the cost of compliance with grain marketing regulations. In many instances, both result in unintended behavioral consequences which are detrimental to the cereals market and the economy in general.

Our information on the impact of selected regulations on the cereals market was collected from several sources. First, the Food Security Project surveyed close to one hundred grain wholesalers and semi-wholesalers in June 1989; (all retailers were removed from the analysis). Next, we distributed a similar questionnaire, adopted for the transport sector, to about 50 road transporters during August and September 1989. The several river transporters who responded (pinassiers based in Mopti and Tombouctou) were not included in this analysis. The respondents were broken down by base of operations as follows:

<table>
<thead>
<tr>
<th>Wholesalers</th>
<th>Semi-Wholesalers</th>
<th>Total Traders</th>
<th>Grain Transporters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bamako</td>
<td>N = 17</td>
<td>N = 12</td>
<td>N = 29</td>
</tr>
<tr>
<td>Koutiala</td>
<td>N = 4</td>
<td>N = 4</td>
<td>N = 8</td>
</tr>
<tr>
<td>Sikasso</td>
<td>N = 2</td>
<td>N = 4</td>
<td>N = 6</td>
</tr>
<tr>
<td>Ségou</td>
<td>N = 6</td>
<td>N = 4</td>
<td>N = 10</td>
</tr>
<tr>
<td>Mopti</td>
<td>N = 6</td>
<td>N = 7</td>
<td>N = 13</td>
</tr>
<tr>
<td>Tombouctou</td>
<td>N = 2</td>
<td>N = 7</td>
<td>N = 9</td>
</tr>
<tr>
<td>Gao</td>
<td>N = 7</td>
<td>N = 5</td>
<td>N = 12</td>
</tr>
<tr>
<td>Ansongo</td>
<td>N = 1</td>
<td>N = 2</td>
<td>N = 3</td>
</tr>
<tr>
<td>Bourem</td>
<td>N = 1</td>
<td>N = 5</td>
<td>N = 6</td>
</tr>
<tr>
<td>Total</td>
<td>N = 46</td>
<td>N = 50</td>
<td>N = 96</td>
</tr>
</tbody>
</table>

By coincidence, the breakdown between wholesalers and semi-wholesalers is almost equal whereas the number of road transporters exactly equals one-half the number of traders, wholesalers and semi-wholesalers combined. Note that transporters are grouped according to their principal base of operations (not according to survey location), accounting for the appearance of Dioila even though it was not a Project survey site. Also note that the Segou transporter sample includes one transporter from Bla; Dioila includes one transporter from Beleco; and Tombouctou includes the neighboring port towns of Kabara and Korioume. In order to protect the confidentiality of the small number of traders and transporters from Ansongo and Bourem, the responses of Ansongo are grouped with those of Bourem and their joint responses are designated as "Ansongo-Bourem".
Finally, the slight variation in the number of responses from one question to the next is due to the fact that some traders or transporters chose not to respond.

This Working Paper also reflects the opinions of the traders and the transporters as expressed during the training seminar on cereal market regulations held in Bamako in October 1989, sponsored by OPAM's Center for Documentation and Training (CEFODOC). Lastly, this Paper benefitted from an informal survey by the Market Information System (SIM) of cereal exporters in the Third Region of Mali in November 1989.

Anticipated reponses to certain questions were precoded while responses to other questions were left open, giving the trader or transporter latitude to structure his response as he chose. Tables 3, 6, 7, 9, 10, 17, 18, and 20 in the text and Tables A11, A13, A15, and A17 in the annexes represent the open narrative responses, carefully summarized and categorized to maintain their original idea as well as tone.

In many instances, the broad range of responses in the Tables could have been condensed into fewer categories to delineate differences more sharply. For the most part, however, we have left the responses as they were in order to illustrate the diverse impact of the regulatory environment on trader and transporter marketing behavior. We will draw comparisons and associations of the responses in the text.
Acknowledgements

We would like to thank our three collaborating institutions: the National Food Strategy Evaluation and Monitoring Commission (CESA) and its Technical Secretariat, Michigan State University (MSU), and the Agency for International Development (USAID), for their continued administrative, intellectual and financial support.

We would like to sincerely thank the participating grain traders and transporters for their willingness to respond to our multiple questions without compensation.

We welcome comments on this Working Paper. In no case should the Paper be taken to necessarily reflect the official positions of USAID or CESA. Responsibility for any factual or analytical errors rests exclusively with the authors.
# Table of Contents

**Foreword** .......................................................... i  
**Acknowledgements** .................................................. iii  
**List of Abbreviations** ................................................ viii  

**I. Introduction** ....................................................... 1  
A. Some Preliminary Observations on the Regulatory Environment ................. 1  
B. The Nature of the Impact of Grain Market Regulations .......................... 1  
C. Systemic Problems of Market Regulation in Mali ................................... 2  
  1. Thin Markets ................................................ 3  
  2. Self-financing Operations of Regulatory Agencies .......................... 3  
  3. Out-of-Date Regulatory Texts and Standard Operating Procedures ......... 3  
  4. Rigidities in Tax Collection ....................................... 4  
  5. Conflicting Objectives and Regulations across Regulatory Agencies ........ 4  
  6. Inconsistency of Rule-enforcement .................................. 4  
  7. Perception of Discrimination against Grain Traders and Transportors in Adjudication of Disputes . 5  
  8. Time Cost of Compliance .......................................... 5  
  9. Insecurity of Contracts ......................................... 5  
D. Purpose of the Working Paper .......................................... 6  

**II. Potential Impact of Certain Regulations on the Functioning of the Cereal Market** .................................... 7  
A. Impediments to Changing the Scale of Operations in the Cereals Trade .......... 7  
  1. Background ................................................. 7  
  2. Present Situation .............................................. 8  
    a. A sampling of trader opinions ............................... 8  
    b. The procedure for determining operating license fees .............. 11  
    c. Transparency in the assessment of the value of operating licences ... 13  
  3. Possible Consequences of the Lack of Flexibility in Changing the Scale of Operations ........................................... 14  
    a. Impact on tax revenues .................................. 14  
    b. Impact on cereals market transparency ...................... 14  
    c. Impact on cereals market efficiency ........................ 15  
B. Monthly Declarations of Cereal Transactions ..................................... 16  
  1. Background and Regulatory Rationale .................................. 16  
  2. Grain Trader Opinions ........................................... 16  
  3. Likely Consequences of the Enforcement of the Monthly Declaration ........ 19  
    a. Impact on tax revenues .................................. 19  
    b. Impact on the relations between traders and the Economic Affaires Agency ........................................... 19  
    c. Impact on transaction costs ............................... 21  
    d. Impact on cereals market transparency ...................... 21  
  4. Exploration of Alternative Means to Collect Cereals Transactions Information . 21
C. Maintenance of Permanent Cereal Stocks

1. Background and Regulatory Rationale

2. Deficiencies in the Regulation
   a. Imprecision in the definition of "Wholesaler, Semi-wholesaler
      and Retailer"
   b. No provisions for waivers
   c. No provisions for drawdowns in emergencies

3. Grain Trader Opinions

4. Hypothetical Acquisition Costs of Cereals to Reach Required Stock Levels

5. Other Probable Consequences of the Minimum Cereals Storage
   Requirement

6. Implications for the Public Sector

7. Exploration of Alternative Means to Estimate Trader Stocks

D. Domestic Road Transport Rates

1. Regulatory Rationale

2. Consequences of Official Transport Rates on Transporter Behavior

3. Grain Transporter Opinions

4. The Hypothetical Cost of Official Transport Rates on the Collection of IAS

5. Implications for Collecting IAS under the New Domestic Transportation
   Policy

E. Road Checkpoints

1. Regulatory Rationale

2. Grain Transporter Opinions

3. Economic Consequences of Numerous Road Checkpoints
   a. Costs to grain consumers of numerous fines and bribes
   b. Slowdown of investments in the transport sector

4. Alternatives to Road Checkpoints

F. Uncertainity about Cereals Export Policies

1. Background
   a. Review of Mali’s export policy
   b. Advantages of importing and exporting for domestic price
      stabilization

2. Possible consequences of the liberalization of cereal exports
   a. Impact on consumer prices
   b. Impact on export taxes
   c. Impact on producer marketing strategies and marketed surplus
   d. Impact on trader marketing strategies
   e. Impact on investment, specialization and scale of trader operations

3. Institutional Conflicts of Interest concerning the Liberalization of Exports
   a. The food-price dilemma
   b. The conflicting need for export taxes and producer support prices
   c. Institutional conflicts between the center and frontier zones
      concerning implementation of the liberalized exports policy
### III. Conclusions and Policy Implications
- A. Common Impact of these Regulations on Market Performance
- B. Recommendations
- C. Closing Remarks

### References

<table>
<thead>
<tr>
<th>Annex</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Trader and Transporter Sampling Methodology</td>
<td>60</td>
</tr>
<tr>
<td>2.</td>
<td>Reference Tables</td>
<td>61</td>
</tr>
<tr>
<td>3.</td>
<td>Awareness of Grain Market and Transport Regulations: Some Quiz Results</td>
<td>84</td>
</tr>
<tr>
<td>4.</td>
<td>The Striking Divergence in Grain Trader and Grain Transporter Opinions: An Unfinished Agenda in the Transport Sector</td>
<td>92</td>
</tr>
<tr>
<td>5.</td>
<td>Note on the Food Security Project</td>
<td>98</td>
</tr>
</tbody>
</table>
List of Commonly Cited Abbreviations

1. AV(s) Farmer-level Village Association(s), *Association villageoise(s).*
2. BIC Annual business (firm or corporation) gross profit, *bénéfice industrielle et commerciale.*
3. CEFODOC Documentation and Training Center operated by OPAM, *Centre de documentation et de formation.*
5. CCIM Chamber of Commerce and Industry of Mali, *Chambre de commerce et d'industrie du Mali.*
6. CFAF CFA Franc, unit of currency used by member countries of the West African Monetary Union, including Mali, convertible with the French Franc at 1 FF = 50 CFAF.
7. CMDT *Compagnie malienne pour le développement des textiles,* ODR (see below) specializing in mixed cotton-cereals production in southern Mali.
8. CNAUR *Comité National d'Aide d'Urgence et de Réhabilitation,* Malian agency concerned with emergency aid and rehabilitation activities; formerly known as *Comité National d'Aide aux Victimes de la Sécheresse* (CNAVS), national aid commission for drought victims.
9. COC *Comité d'Orientation et de Coordination,* Malian government interagency oversight committee guiding grain market liberalization.
10. DNA Agricultural Agency, *Direction nationale de l'agriculture,* within the Ministry of Agriculture.
11. DNAE Economic Affairs Agency, agency formerly charged with enforcement of grain price regulations, *Direction nationale des affaires économiques.*
13. GIE Cooperative of grain semi-wholesalers, *Groupement d'intérêt économique.*
15. IGR Annual income tax, *Impôt général sur le revenu.*
18. MSU Michigan State University.
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>19. ODR(s)</td>
<td>Opération(s) de Développment Rural, geographically focused integrated rural development project(s) specializing in cereals and/or cash crops.</td>
</tr>
<tr>
<td>20. OHV</td>
<td>Opération Haute-vallée, ODR specializing in coarse grain production in the upper Niger River valley.</td>
</tr>
<tr>
<td>21. ON</td>
<td>Office du Niger, large-scale ODR specializing in irrigated rice production in the Niger River delta.</td>
</tr>
<tr>
<td>22. ONT</td>
<td>National Transportation Office, Office nationale des transports.</td>
</tr>
<tr>
<td>23. OPAM</td>
<td>Office des Produits Agricoles du Mali, cereals marketing agency of Mali.</td>
</tr>
<tr>
<td>24. OSRP</td>
<td>Office de Stabilisation et de Régulation des Prix, price regulatory agency and cross-subsidy fund for key exports and consumer goods.</td>
</tr>
<tr>
<td>25. PRMC</td>
<td>Programme de Restructuration du Marché Céréalier, multi-donor program guiding grain market liberalization.</td>
</tr>
<tr>
<td>26. SIM</td>
<td>Grain market information and analysis unit operated by OPAM, Système d'Information sur le Marché céréalier.</td>
</tr>
<tr>
<td>27. SNS</td>
<td>Strategic grain reserve operated by OPAM, Stock National de Securité.</td>
</tr>
<tr>
<td>28. SUP</td>
<td>Services d'utilité publique, collective term for the military and civil services.</td>
</tr>
<tr>
<td>29. WFP</td>
<td>World Food Program.</td>
</tr>
<tr>
<td>30. USAID</td>
<td>United States Agency for International Development.</td>
</tr>
<tr>
<td>31. UNCTRM</td>
<td>National Cooperative Union of Malian Transporters, Union nationale de coopératives des transporteurs routiers maliens.</td>
</tr>
</tbody>
</table>
Part I. Introduction

A. Some Preliminary Observations on the Regulatory Environment

In this Paper, we emphasize alternatives and problems in regulating economic behavior as applied to the grain market, not on the meaningless question of whether to regulate or not. Economic behavior is already regulated by social customs, laws, standard operating procedures,\(^1\) taxes and subsidies and statutory-administrative rules. The effectiveness of grain market regulation depends on the enforcement mechanisms and the nature of incentives. Without regulation in the broadest sense, there would be no market.

Regulations establish a set of rights and obligations. For example, property rights permit the owner to impose a cost on someone else for use of an input or output, that cost being a function of supply and demand. In this manner, prices always reflect the consequences of previous regulations. Thus, when economists refer to the allocation of resources by the market, they really mean allocation of resources by the market within the given regulatory environment.

It is useful, however, to consider the grain market as an instrument of regulation rather than an object of regulation. The market translates customs and political decisions into economic costs and incentives (Shaffer).

B. The Nature of the Impact of Grain Market Regulations

Rapidly evolving rules of the game of cereals marketing in Mali lead to the problem of institutional obsolescence. That is, many of the basic institutions and regulations affecting the cereals trade derive from the prior economic regime, characterized by tight direct state control and a negative bias toward the private sector. These regulations and institutions are now out of step with market liberalization.

These rules constrain the ability of the private sector to market cereals, leading to the perception among some policy-makers that the private sector is incapable of playing the role it is called upon to play under the PRMC. The risk is that the liberalization may be judged a failure, paradoxically, because it has not gone far enough -- because many of the basic institutions affecting cereals markets have not been reformed. In some cases, new institutions have not yet been set up.

For example, grain wholesalers who now supply OPAM's former institutional customers, (the civil service and consumer cooperatives) have encountered three problems, all related to weak capital markets and insufficient access to credit. First, wholesalers are unable to guarantee the desired cereals quality (a problem OPAM never had to worry about when selling below market prices) due to the lack of their own network of buyers to ensure quality controls. Second, traders lack the resources to invest in larger storage facilities which would allow them to stabilize supplies over time. Even so, a negative attitude in certain government circles considering all grain storage to be "speculation" and traders who store grain to be "speculators" dampens the willingness of traders to store grain. Third, grain traders are hard pressed to sell on credit terms to institutional clients who go months on end without pay.

\(^1\) Standard operating procedures refer to explicit rules or implicitly acceptable practices within a firm or agency for taking action in various scenarios.
Another example is the evolving role of OPAM to serve grain-deficit zones. In the past, the private sector may not have served these zones well, partly due to the unfavorable institutional environment (a transport pricing policy that explicitly increased the delivered cost of cereals to the deficit zones, enforcement of official prices that did not reflect local market conditions and lack of bank investment credits to realise larger economies of scale in transport and storage). This led to the self-fulfilling observation that the private sector does not serve deficit zones as well as desired, strengthening calls for more direct grain marketing by the state or a return to repressive regulation of private traders -- both of which reduce private incentives to supply deficit regions.

Individual economic behavior is shaped by the consequences of the costs (disincentives) and benefits (incentives) of taking certain actions and the mechanisms which reinforce the consequences. Regulations change the economic choices (and reinforcement mechanisms) for individuals, thereby changing their patterns of behavior. Designing regulations entails identifying strategic changes in the opportunity sets of market participants which result in more effective behavioral responses which can be adapted in socially productive ways (Shaffer et al.).

This is of great concern because the performance of the cereals market is shaped by the aggregate consequences of the economic behavior of individuals or firms and the countless decisions they make daily. By changing what these individuals or firms take into account, regulations may result in apparently irrational economic behavior or unanticipated outcomes. Thus, the microeconomic behavior of many individuals and firms may lead to undesirable macroeconomic consequences and failure to achieve the intended objectives.

The design -- and enforcement -- of market regulations needs to anticipate the kinds of costs and benefits facing the target individuals and firms in order to predict the expected effectiveness of the regulations. In other words, regulations should be structured so as to align predicted patterns of economic behavior with the intended regulatory objective so that market performance and policy goals match up. Otherwise, poorly designed regulations may end up at cross-purposes to their original intention by raising transaction costs, the costs of doing business, and reducing efficiency in exchange. The consequences could be market failure (consequence of too high transaction costs). Modification of the offending regulation, rather than direct state intervention, may prove most effective in adjusting the market.

C. Systemic Problems of Market Regulation in Mali

It is essential, at the beginning, to identify a number of pervasive systemic problems in the Malian cereals market. Unless taken into account, these problems will create particular difficulties in regulating the market. A brief look at some of these systemic problems follows.

1. Thin Markets

Cereals markets in Mali are "thin" markets in that only a minor share of production reaches the market, the rest staying on the farm or traded in non-market transactions. The residual (or thin) nature of cereals markets combined with highly variable interannual production may cause volatile prices and market supplies. Even slight variations in supply and demand cause disproportionately greater fluctuations in prices, especially in isolated areas. This fosters the misperception that someone is manipulating the market and that the state should do something to stop it.
2. Self-financing Operations of Regulatory Agencies
The statutes of regulatory agencies such as the Economic Affairs Agency, Customs, the Water and Forest Service allow them to keep part of the value of fines and confiscations to self-finance their operating and equipment costs and to offer bonuses to agency officials and arresting agents. These regulations create institutional incentives to find fault in order to procure financing by filling national and regional quotas for fines. The sharing in fines by agents also creates individual incentives to find fault. The possibility of buying off agents to avoid fines (whether justified or not) reduces operating revenues of the regulatory agencies and reduces trader margins.

For example, more than one-fourth of the grain traders sampled (26 of 95, or 27.4 percent) said that they had bribed Economic Affairs agents at least once to avoid a fine since the start of the 1987/88 campaign, the last bribe averaging 15,125 CFAF (for 20 of 26 reporting the figure) [refer to Tables A1 and A2 in Annex 2]. Two-thirds of the traders (66.7 percent) said that payment of a fine or an arrangement to avoid a fine represents an unrecoverable loss which cannot be passed along to the consumer in terms of higher prices, the other traders saying they would deduct these fines and arrangements from their income taxes (19.8 percent) or reduce operating costs elsewhere in order to maintain the same profit margin (12.5 percent) [Tables A3 and A4 in Annex 2].

3. Out-of-Date Regulatory Texts and Standard Operating Procedures
Out-of-date regulatory texts and standard operating procedures of agencies create confusion about the direction of recent reforms. For example, grain retailers are legally obligated to post their sales prices in a visible manner or risk payment of a fine.3 Market dynamics often means that prices change several times during the course of the day. To change posted sales prices after each transaction represents an inconvenience for the seller. Although reform legislation usually annuls the pertinent section of contradictory laws, these old laws remain on the books and may be invoked momentarily against an uninformed trader or transporter.

Of 48 traders who paid a fine since the start of the 1987/88 campaign (when producer and consumer prices for coarse grains were first freed), 55 infractions (or alleged infractions) were mentioned, of which 11 (20.0 percent) concerned the non-posting of prices [Tables A5 and A6 in Annex 2]. Widespread dissemination of information on recent changes may lessen this enforcement of an obsolete regulation.4

4. Rigidities in Tax Collection
Chronic budget deficits facing the government have led to counterproductive rigidities in tax collection procedures at the field level. Pressures to meet tax quotas compel tax collectors to

---

2 See especially Arrêté No. 1046/MFC-DD of November 9, 1965, concerning legal transfer of confiscated or abandoned objects by Customs; Arrêté No. 1700/MFC-DNAE of June 7, 1976, concerning the general price regime and repression of infractions concerning distribution of fines and confiscations due to economic misdemeanors; and Décret No. 45/PG-RM of February 24, 1986, concerning distribution of confiscated products, fines, damages, restraints and seizures in the forestry sector.

3 Law No. 86-90/AN-RM of September 12, 1986, concerning the general price regime and repression of infractions; Articles 14 and 47.

4 Although still on the books, the Economic Affairs Agency decided in late 1989 to stop enforcing this regulation.
be satisfied with the minimum receipt of the previous year's level of taxes or to impose arbitrary fines, rather than base assessments on actual income earned. Not only does the government lose potential revenues by these satisficing procedures, but the perception by traders and transporters that taxes are assessed randomly and unfairly, regardless of income or level of effort, encourages tax evasion and alienates the business sector from the government.

5. **Conflicting Objectives and Regulations across Regulatory Agencies**
Conflicting objectives and regulations at cross-purposes across regulatory agencies catch grain traders or transporters in the middle. The tentative decision in September 1989 to suspend all rice imports and food aid during 1989/90 in order to sell large stocks of Office du Niger rice not only would have put the PRMC and OPAM at financial risk by cutting off their normal cash flow from the sale of food aid rice, but contradicted the new import-export regime by which an importer simply registers his intention to import. The lack of a long term rice marketing strategy, in this case, leads to ad hoc management in crises and vulnerability in the face of donor pressures.

6. **Inconsistency of Rule-enforcement**
Inconsistency of rule-enforcement reflect the conflict between national and local ideas about economic liberalization. This inconsistency may occur between localities (as different officials interpret regulations differently or accord different priorities to them) or between individuals and groups (as some less articulate or less powerful groups are victims of discrimination). Twice as many traders interviewed stated that marketing regulations were enforced arbitrarily (40.6 percent) rather than uniformly (18.8 percent); the remainder were uncertain. Traders outside Bamako thought rules were enforced arbitrarily by a ratio of 4.5 to 1 [Tables A7, A8 and A9 in Annex 2]. The issue is one of fairness.

Some inconsistencies may occur inadvertently and some degree of decentralization appears necessary (devolution of powers and responsibilities to regional authorities with the autonomy to bend the law in the interests of "social peace and tranquility"), but the perception of unequal enforcement of equal violations diminishes respect for the enforcement mechanisms and future willingness to comply.

7. **Perception of Discrimination against Grain Traders and Transporters in Adjudication of Disputes**
Fair and impartial adjudication of regulatory disputes remains a problem. Those near Bamako complain that they stand little chance of challenging a penalty or winning a dispute against a regulatory agency. Those outside of Bamako have even less access to the regulatory system which may be poorly informed of recent developments in any case. The perception that "the state always wins" discourages traders from using the system to seek redress of grievance.

Settling the matter "off-record" becomes the manner of least-resistance for resolving disputes. Of 96 grain traders, 45 (46.9 percent) said that it was not possible to defend themselves in the case of litigation against the government regulatory services; another 23 (24.0 percent) said that while it was legally or theoretically possible to defend themselves, this was wholly unrealistic in practice. When asked whether it was worth it to contest a regulatory penalty, even if it was possible to defend oneself and win, 55 of 96 traders (57.3
percent) said it was not worth the trouble and 16 traders (16.7 percent) said it was worthwhile only if a big fine was involved, otherwise it was best not to contest [Tables A10-A13 for traders and Tables A14-A17 for transporters in Annex 2].

8. **Time Cost of Compliance**

Complying with regulations is a normal part of conducting a business. Too often, however, the cost of compliance in terms of time is excessive due to multiple trips to the regional capital, missed appointments, waiting in line, faulty or complicated instructions or opportunism on the part of officials. This time lost unnecessarily represents a high opportunity cost for traders and transportors (the value of their time in the next alternative use).

Unfortunately, there are strong financial incentives not to comply with certain regulations at the risk of paying smaller fines if caught. Of the trader sample, 9.6 percent said that one of first three advantages of compliance with regulations was the time saved during future official transactions. In contrast, when citing the first three disadvantages of compliance, 13.0 percent said that the time lost trying to follow the rules was costly; 31.2 percent said that following the rules cost more than not following the rules; and 5.2 percent claimed it was impossible to tell for certain if they were actually in compliance with the rules or not. [Tables A18 and A19 in Annex 2]. A roughly similar pattern of responses emerges from the transporter survey [Tables A20 and A21 in Annex 2].

9. **Insecurity of Contracts**

The insecurity of contracts in the cereal trade is probably due more to high ex-post transactions costs, mainly in monitoring performance and resolving disputes, than to the ex-ante costs of gathering and processing information and reaching a decision (thanks in part to the SIM). The cumbersome administrative apparatus does not allow speedy resolution of contractual disputes between private traders, leading them to try to resolve disputes among themselves, although not always sucessfully. Private traders are more all the more hesitant to enter into contracts with the government (see 6. above), fearing that in case of dispute, there would be no probablity of a successful outcome. Insecurity of contracts reduces exchange efficiency because expectations are insecure.

D. **Purpose of the Working Paper**

This Working Paper analyzes, first, the impact of selected key regulations on the incentives for traders and transportors to market grain in Mali and why these regulations may not achieve their desired result. Second, the Paper attempts to measure the costs to traders of compliance with selected grain marketing regulations. Where possible, third, the Working Paper attempts to propose modifications in the structure of the given regulation which would bring about the intended result.