

# BRAZILIAN AGRICULTURE: NEW FINANCING INSTRUMENTS

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## 1. Introduction

The purpose of this paper is to present and discuss rural financing alternatives which add value to the Bond of Rural Product (CPR)<sup>2</sup>, or which will complement it with strategies that permit gathering of funds for investment in the agricultural sector.

The quest for new financing alternatives was intensified when the rural credit system provided by the Federal Government (abundant and subsidized credit) crumbled in light of the fiscal crisis suffered by Brazil during the 1980's and 90's.

The CPR is a bond with privileged status in the point of view of its formalization, mainly in concern to the constitution of guarantees and the form of execution. In its creation, was tried some attractive forms to obtain the guarantee in order to facilitate its placing in the market. Nevertheless, this bond did not have the expected success due to: a) the high interest rates prevailing in the Brazilian economy due to conjunctural macroeconomic instabilities; b) operational problems.

In relation to the operational problems, some alternatives are being presented to the economic agents. These alternatives, which will be presented and discussed along the paper, are: CPR with cash settlement (CPRF) and two modalities of securities backed-CPR.

The Banco do Brasil (Bank of Brazil), author of the proposal for the creation of the CPR, has been the principal bank running the deal by conceding guarantees to its issuers. The table below indicates the trajectory and evolution in the negotiations with this bond.

CPRs guaranteed by Banco do Brasil, per crop			(position 02/29/2000)
Crop	Value - R\$ 1 00	Bonds issued emitidos	Percentage Variation
94/95	31.392.957	107	-
95/96	67.519.497	814	660.8
96/97	65.455.946	918	12.8
97/98	61.743.935	1.246	35.7
98/99	126.709.364	1.842	47.8
99/00*	87.816.761	1.616	-12.3
<b>TOTAL</b>	<b>440.638.460</b>	<b>6.543</b>	<b>-</b>

SOURCE: BANCO DO BRASIL

Note: (\*) emissions not yet closed.

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<sup>2</sup> The CPR is an agricultural cash forward contract with a different characteristic: the cash is received upon the emission of the bond while the product is delivered at the contract's maturity. For further information in the subject about the nature and functioning of the bond see Gonzalez & Marques (1998), Gonzalez (1999) and Gonzalez & Marques (1999). Whereas for the other forms see Gonzalez & Costa (1998), Gasques & Villa Verde (1995) and Massuquetti e Mielitz Netto (1999).

Considering the rural financing necessities in Brazil, we can say that the values transacted via CPR are still very modest. Nevertheless, as can be noticed by the analysis of the table, the quantity of issued bonds has risen year after year<sup>3</sup>. From the first to the second year (95/96), there was an expansion of 660.8% while from this year to the year of 98/99, there was an expansion of 126%. The search for improvements to the CPR aims at turning the issuing market more dynamic.

Gonzalez & Marques (1998) and Gonzalez (1999) proceeded an ample study of the CPR, mainly in respect to its contractual and operational aspects; to its role in financing and also to its role in protecting prices contrasting it to the futures and options market.

One of the grandest roles which the CPR has been playing is to serve as a short hedging, besides stimulating, among the farmers, the utilization of other hedging instruments in relation to price risk (Gonzalez, 1999).

Other than this introduction, we organized this paper in the following order: section 2: presents and discusses the CPR with cash settlement; section 3 : discusses the securities backed proposals; section 4: presents the final considerations.

## **2. The CPR with cash settlement (CPRF)**

### **2.1 Characteristics**

After demand and discussion in the market and within the core of the government, it was issued in January 19 2000, the Provisional Measure<sup>4</sup> (PM) n. 2.017, altering the Law n. 8.929, in order to permit the cash settlement of the CPR.

In the Exposure of Motives (EM) which preceded the edition of the PM we can encounter, as justifications for the "new" bond, the fact of being an alternative similar to the traditional rural financing, diverging, though, for its necessity to be suited to the requirements of the market, in some fundamental aspects such as: a) creation of more attractiveness to the investors; b) diffusion among the producer of the habit of negotiating with futures; c) needlessness of official classification of the product; d) increase in the number of buyers with direct consequence over the liquidity of the bonds; e) reduction of the difference between the prices in the issuing and payment of the bond, due to its greater dissemination in the buyers market; f) elimination of the charges of registration, amortization, etc. thus reducing operational costs; g) being an additional mechanism for the leverage of funds to the rural sector.

The cited EM suggests, still, that as a result of the alternatives introduced, the agricultural derivatives exchange and the agricultural futures shall broaden significantly its operations<sup>5</sup>, providing to the issuers alternatives for risk administration and improvement in the financial results.

The PM that, when altering the original law, made possible the cash settlement of the CPR, established certain conditions, requiring: a) exposure of the necessary referentials for the clear identification of the

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<sup>3</sup> The quantity of bonds issued, in our opinion, is the main variable to be observed, once that it shows the diffusion of the bond among the producers.

<sup>4</sup> Law promulgated by the President of the Republic, subject to posterior referendum by the Congress.

<sup>5</sup> In Gonzalez (1999) it is shown that, after the creation of the CPR with cash settlement, there was an increase in the transactions with futures and options contracts at the BM&F (São Paulo Derivatives Exchange), in the deals with coffee.

price or the price index to be utilized in the payment (price formation market and the responsible institution for calculating/divulging the index); b) that the price indicators have periodic publishing, being of easy access and being calculated by reliable public institutions; c) that the CPR be characterized by its name followed by the expression "Financial".

To eliminate possible doubts or juridical questionings, the cited Provisional Measure also took the necessary care to clear out that the CPRF is a bond, clear and perfect, which matures upon its due date by the amount of which is calculated by the multiplication of the contractual price by the quantity of product specified, being so that, in the point of view of charging, is acceptable execution by certain quantity.

## 2.2 Advantages and risks of the CPRF

This new form of bond was recently released, then it is not yet possible to do an analysis of its acceptance, including occasional benefits and problems verified. The main objective in the creation of the CPRF was to attract the investors who don't wish or, due to legal matters, can not receive the product.

We understand that the investors won't participate in the CPRF market unless at least two requisites are present: a) possibility of profit; b) certainty about not receiving the physical product (the certainty will occur given the characteristic of the bond or by the existence of a high liquidity secondary market).

As any other financial instrument, the CPR with cash settlement (CPRF) presents favorable and unfavorable points, principally depending upon the position of the agent, whether a buyer or a seller.

As favorable points to the issuer, we can list: a) broadening of the number of buyers (greater liquidity and sale at more favorable prices); b) elimination of the problems concerning classification and delivery of the product; c) reduction of the preparation and delivery costs; d) broadening of the secondary market; e) diffusion among the producers of the habit of negotiating with futures and options; e) possibility of registration cost reduction.

From the analysis of the positive points, stands out the possibility of increase in the number of buyers, with direct consequence in the resource allocation to producers and the possible discounts practiced, given the greater pulverization of the buyer market. Other than this, product classification and delivery, which has been reason for many complaints from the producers<sup>6</sup> (the case of coffee) would be unlinked from the bond, thus eliminating a focus of unrest.

Among the roll of unfavorable points to the CPRF, we can point out the possibility of the occurrence of fictitious sales or sales beyond the production capacity of the issuer. This fact, in case it occurs, can lead to questionings about the integrity of the bond or, still, intervention by the regulatory authorities.

Another point is the vulnerability of the producer when selling his produce. He needs to sell it within his region, being therefore subjected to the market power of monopsonistic or oligopsonistic enterprises, in respect to price and term of payment, being, consequently, trapped.

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<sup>6</sup> See, about this, Gonzalez (1999), section 5.5.

According to Hull (1996, p.47), "it is the possibility of final delivery that leads to the determination of the future price". If we can apply this assertion to the CPRF, then we have one more worrisome case. Under this modality, the physical delivery of the produce is not realized. Nevertheless, this shall not be a reason for great worry, once that it is predicted the settlement through financial indicators which, due to its close link with the physical markets, in the end will reflect the situation of these markets.

Another point still deserves being considered. The financial indicators represent an average of the physical prices prevailing in the various market at that given moment. Being so, the adherence of the price, in a determined place, to an individual producer, will depend not only in the representativeness of the producer's market in the formation of the indicator, but also in the representativeness and the price variation occurring in the other markets. This is, in other words, if in the CPR the producer has the price formed by means of an auction, in the case of the CPRF, the price will be based in an indicator, carrying with it the risk of a difference in prices (difference between the price in the local market and the indicator), something like a basis risk.

Nevertheless, this risk of price differential can be minimized or controlled by use of the following measures: a) prediction of the magnitude of price differential using prediction models; b) utilization of futures contract of price differential. These contracts are not yet available in the BM&F, though they can be created any moment by the evolution of the market; c) acquisition of put options referenced in the indicator (not yet in practice); and d) sell of futures contracts.

The exposed measures permit us to foresee an increase in the possibilities of the utilization of derivative instruments to complement the transactions with CPRF. More than this, they also evidence the space for the action of consultants in the agribusiness.

Related to the price differential risk, this risk is not different from the one assumed by the producer in hedging operations on sales in the futures market. This is, when the producer assumes a short hedging (with the objective of guaranteeing a determined price), at the contract's maturity, there can be a gap between the price being practiced in the physical market and the futures contract price resulting in a profit or loss depending on the position held by the producer.

Another present risk, as previously mentioned, can be the occurrence of price manipulation in the physical market, due to the need of repurchasing the CPRF, or, yet, the concentration of the product supply. These risks are not different from those faced by the producers when they finance their crops by means of the traditional financing forms.

However, these new risks, in opposite to the traditional ones, can be controlled once that it is given to the producer the possibility of rescuing the CPRF without having to negotiate his produce in the local market. For this, we can utilize: a) forward sale of the produce; b) product supply in auctions of national scope (or even international) aiming at broadening the buyers market<sup>7</sup>; c) financing of the carrying of the present value by means of EGF (loans for commercialization) or other credit lines; and d) sale of CPR of the harvested crop.

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<sup>7</sup> The Banco do Brasil operates a service of agricultural products electronic auction that serves both to outflow the produce of the producers and the stocks of the government.

As it can be observed, part of the risk minimizing instruments are not yet readily available to the producers. Nonetheless, we do believe that the own development of the market itself will lead the way, as it has been, for instance, the trajectory run by the CPR with product delivery.

### 3. Securities backed CPR proposals.

#### 3.1 FINAGRO's proposal<sup>8</sup>

FINAGRO's proposal<sup>9</sup> has by objective the implementation in Brazil of a mechanism of security backing, financing and commercialization of agricultural products, whose main role would be the issuing of bonuses representative of products backed in CPR.

FINAGRO, in its project, wants to map and control all the steps of the agricultural process, by means of the accreditation of agronomists who would do a study of the aptitude of the farming areas and the technology to be utilized, do a follow up on the crops and do an examination of the area in case of losses. More than this, they would act in the coordination of the system of product reception, storage and classification, including the arbitrage chambers.

The *modus operandi* consists in the producers issuing the CPR in favor of FINAGRO, which, in turn, would subdivide it in standard bonuses referenced in the product and then hand them to the producers for the purchase of agricultural inputs or for offer in auction aiming conversion for currency. In the conception of this entity, the settlement of the CPR would be put into effect by the delivery of the product or by the repurchase of the bonds.

The conceived modeling permits FINAGRO to turn itself into a virtual trading. The operations are programmed to begin together with the cultivation of soybean and corn in the regions to the south of Brasília, where the insurance modalities are already defined (rural and performance insurance).

In a first evaluation, two movements can occur: a) the bonuses can cause the informal CPRs<sup>10</sup> to emerge and be inserted in the formal market, thus creating conditions to strengthen a secondary market; b) for being referenced in the product, and not in the currency, they possibly may not broaden the market for the release of the CPR.

If the system turns out successful, some advantages shall appear as a natural consequence: greater flow of funds to the rural sector; greater realism in the crop forecast due to the follow up system and less pressure for funds of governmental origin, therefore facilitating the distribution of the remaining funds according to the needs of the society and the objectives of public politics.

What shall be retained from this proposal, is the visualization of a greater utilization of the CPR as an instrument for financing and outflow of the produce, favoring, at last, the rural activity.

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<sup>8</sup> FINAGRO – Cia. de Administração de Negócios Agrícolas do Brasil S.A. (insuring company for receivables). See Bertucci (1999)

<sup>9</sup> Based in a suggestion presented to the BM&F by *Trend e Mailson da Nóbrega Consultorias*. See, about this, Guedes Filho (1999).

<sup>10</sup> CPRs issued by agreement between the selling and buying parts, without passing through the bonds registration system (private agreement between the parts). According to Machado (1997), there was, in 1997, in the Brazilian market, more than 100,000 CPRs of this modality.

### 3.2 Lima's proposal<sup>11</sup>

Lima's proposal has a central nucleus quite similar to the proposal introduced in the previous point. The idea is to create a *specific purpose enterprise* (SPE), somewhat similar to a *trust*<sup>12</sup> in the composition of its social capital, with a restrictive statute and rigid agreement among the shareholders.

The SPE will capture the funds by means of debenture bond underwriting together with banks, investment funds, and entities of private social security utilizing the amount gathered for the acquisition of CPR within certain pre established conditions. Simultaneously to the acquisition, the CPRs will be offered to the agroindustries, via call options, with a predefined premium.

In the point of view of the proposer, it is the agroindustry and the agricultural inputs industry who will play a key role in the structure, absorption, and viabilization if the product linked to the CPR, permitting the financing process for the producer. In the due date of the CPR, the agroindustry exerts the option, paying to the SPE. The funds received are utilized to cover operational expenses and to settle the financing acquired in the financial system. The possible profit of the SPE is retrieved to the agroindustries via debentures with profit sharing and dividends from preferential shares.

The call option, besides being important in the guarantee of the operation, in practice represents a lower percentage value (when compared to the alternative of anticipated purchase via CPR or green soybean contracts<sup>13</sup>, for example) so that the agroindustry can operate with greater security, storage planning, and lower capital disbursement.

In practice, the stocks are bankrolled without burdening the credit limit of the enterprises in relation to the banks and with lower exposure in the balance sheet, thus improving the financial indicators. For the producers, nothing changes in relation to the present CPR deals while, for detainees of the funds, the attractiveness resides in dealing with an enterprise with clearly defined actions, with solid guarantees and minimized risk, according to the author of the proposal.

At last, it deals with a model where the crop financing occurs in a private form, relieving the government from the effort of resource allocation and from the practice of price guarantee for the stocks commercialized in the presented form.

## 4. Final considerations

The forms examined previously clearly indicate that the society has mobilized itself in the search for alternatives that permits the substitution of governmental credit, before available via Rural Credit National System, which, day by day, is perishing in an accelerated form.

The scenario experienced by the rural sector in the end of the 80's and beginning of the 90's, besides being one of gradual extinction of the subsidies, was also of great credit scarcity. The economy was

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<sup>11</sup> Lima (1999)

<sup>12</sup> Independent enterprise, neutral, of specific purpose, that assumes receivables and issues bonds backed in them.

<sup>13</sup> Cash forward contract by which the soybean is sold during its cycle of production, for future delivery.

passing through intense fiscal crisis which imposed for the economic agents the search for solutions situated outside the State apparatus.

Within this context of alternatives search, new mechanisms surged, which permit the private financing of crops with special mention to the Bond of Rural Product (CPR). In light of the great operational attractiveness to the producers in the commercialization of their crops via CPR, a great roadblock still remains. The prevailing market flow is not yet sufficiently big to absorb all the potential in the bond's release, thus not permitting a greater competition in the formation of prices.

One of the alternatives for adding value to the bond, aiming the improvement of the liquidity and the increase in the emissions, is for it to continue being referenced in the rural product, although without the need that the investor receive the product at the bond's maturity. This very single fact of the needlessness to receive the product can lead to a greater demand for the bond, augmenting the flow of funds to the rural sector and causing the price paid for the producer to be situated in a more attractive level. The way to achieve this objective would be by means of cash settlement (CPRF).

Nonetheless, the CPRF still has to pass through the market test. Adding value, it will survive and be successful. Advantages are introduced and risks are also present. Although, we do believe that the increase in the number of deals will point out the way for possible corrections in future deviations, being important to note that, each time more, elements are introduced which permit the producer to increase his professionalization level in the commercialization of his crop.

On the other hand, the security backed alternatives, in case they prove themselves to be viable, can leverage the CPR, creating an effective channel of forward commercialization. This will enable the producers to obtain the necessary funds for the cultivation of their crops turning out to be one more alternative composing his commercialization and financing strategies.

Within this roll of alternatives, in FINAGRO's proposal the producers issue the CPR and FINAGRO subdivides it in bonuses which are sold in the market with the objective of capturing the funds that the producers necessitate. On the other hand, Lima's proposal incorporates mechanisms utilized in the Brazilian financial market. This latter proposal has a greater difficulty for implementation due to the fact that it was presented as an isolated initiative without the support of an association which represents the rural sector.

What is perceived, at last, is that the market will continue to improve the existing mechanisms, besides developing others, with the objective of finding its own financing forms, once that the traditional resource channels are either perished or in a perishing phase.

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