Agro-credit insurance
Key aspects for risk underwriting

Marcelo Nuñez Carriere
Special mention – 2015 C. Dupont Award

Abstract

The purpose of this work is to reflect upon credit insurance applied to the agricultural sector in Argentina and to contribute to its spreading. In this sector in particular, credit insurance requires a greater penetration and more widespread publicity.

Credit insurance offers processes which are essential to achieve a comprehensive management of commercial risk. If this tool were applied to the whole value chain of the agricultural sector, it would be possible to consolidate a profitable growth for our insured companies, securing their main investment: their own clients.

Introduction

In Argentina, the economic and social development of the country is driven by the agricultural sector. Taking into account the agro-processing industries, the agricultural supplies sectors and the marketing activities and related services, the agricultural sector total direct share in GDP has historically been around 34%. This leading role is held all throughout the country, from the most remote areas to the capital itself.

During the 20th century, agriculture played a limited role in the economic growth since it was considered that it must be a provider of "surpluses" (labor surpluses, foreign currency and internal savings surpluses, food surpluses, etc.) to boost and subsidize the rest of the economic structure.

From the end of the 20th century through present-day, agricultural development turned into a goal in itself thanks to a sustained demand of products and the growth of relative prices.

During the last two decades, the sector has developed more dynamically due to technological innovation, direct investment, new tools in financial services and the transfer of know-how from world-class leading multinational companies.

At present, the agricultural sector operates in a changing economic environment, and faces permanent risks arising from the agricultural activity in particular as well as the economy in general. This exposure to risk is cumulative and generates unpredictability in the long run, thus increasing the sector weaknesses. Included in the above-mentioned permanent risks and threats are climate phenomena, logistical problems, international prices, state interventions (whether legislative, tax or para-tariff related).

Given this scenario, our objective is to present the necessity to spread credit insurance as a good policy that can be implemented by the companies in the sector and to encourage more insurance companies and insurance brokers to become the protagonists of the necessary development of this line in particular.

Credit insurance

Compared to other economic activities, production and commercial cycles are long in the agricultural sector, which is specially characterized by the necessity of trade credit as the *fuel that gives energy and is fed back to the production and marketing system*.

Trade credit is an investment a company makes, and as any investment, it should be profitable and involve minimal risk. The trade credit necessary for the activity to thrive is partly available from private and state banks but these banks do not meet all the needs of the sector's players. The other great portion of credit remains with our potential insureds, namely the suppliers of agricultural consumables, machinery, services and equipment, who fulfill a *bank's function* although without the necessary tools and *expertise*, and are exposed to lower profit and higher risk.

These suppliers'greater investment lies in their clients' portfolio. A review of the main items in the balance sheets of any of the companies in the sector will show that their receivables account for *more than 40% of their equity, not yet insured.*

Credit insurance provides a structured service based on credit rules intended for:

A. The prevention of trade credit risk through an objective credit analysis.
B. The management and control of outstanding trade credit through daily surveillance.
C. The recovery management, as an additional service and with greater weight and effectiveness.
D. The indemnification for losses derived from incollectibles.

These four pillars provide the insured with a *comprehensive risk protection framework*, which results in greater stability and foreseeable likelihood of contingent events. Furthermore, the insureds add to their credit policy the standards and rules used by the most important multinational companies, thus professionalizing their administrative and commercial organization.

Credit insurance for the agribusiness

Credit insurance must adapt to suit this sector especially through core aspects which must be included in the schedule of each policy.

The marketing of agribusiness products and services involves minimum underwriting requirements. Although the insureds may belong to different links in the marketing chain, they operate in the same short-term environment, influenced by historical customs and traditions.

We propose to develop those aspects which are essential to take into account when it comes to rendering advice, underwriting and administering the credit insurance policy.

1) Subject matter of the insurance

The nature of the insured activities should be structured broadly so that it considers not only the sale of consumables, grains, seeds, silo bags, fuels, lubricants, wires, etc., but also those services that may be covered by the contract, such as technical advice and/or logistics.

2) Policy currency

The insurance policy currency should be the currency in which all the financial transactions inherent to the operations under the policy are denominated. For example, credit limit, indemnifications, premiums, costs, etcetera.

The agribusiness base currency is the US dollar because most of the production is exported. That is why the products international prices are unavoidable. Besides, part of the raw material is imported.

Likewise, the insurance policy must take into account the *two-currency* aspect which is implicit in all commercial transactions, a kind of tacit agreement between insured and debtor which springs from the market's customs and traditions and whose purpose is to impose clear rules in case of an eventual exchange risk derived from the fluctuation of local currency.

The invoice is the focal point of the whole coverage. Insureds will usually bill their debtors in two ways. In the most widely used method, the insured issues the invoice in Argentine pesos and adds a note stating the amount in US dollars at the exchange rate prevailing at the invoice date. The least common method consists in invoicing in US dollars. In very few cases do both methods coexist; this should be the case when, for example, supplies are invoiced in dollars and advice services and logistics are invoiced in pesos.

These methods make it necessary for each policy to include, precisely and accurately, what kind of invoicing is being covered

Accordingly, the policies may be of two types:

- Insurance policies stated in US dollars

This contract must state in US dollars the amount insured, the minimum and deposit premium, the credit limits, the commercial reports expenses, etc. The exchange rate to be used must be the Banco de la Nación Argentina exchange rate. For example, to determine the amount of any indemnification, US dollars must be translated into Argentine pesos at the exchange rate prevailing the day prior to the indemnification date.

The insured must submit the corresponding sales statement on a monthly basis and stated in US dollars. Besides, the insured must report all debit and/or credit notes related to the exchange adjustment, to share the exchange difference risk with the insurer.

- Insurance policies stated in Argentine pesos

This contract must state in local currency the insured amount, the minimum and deposit premium, the commercial reports expenses, the recovery expenses. However, it is essential that the debtors´ credit limits be stated in US dollars to preserve the coverage quality and level beyond the exchange difference. The exchange rate to be applied must be that of the Banco de la Nación Argentina.

In order to preserve *the coverage real value*, the insured must submit the corresponding declaration of turnover in Argentine pesos on a monthly basis; the insured must also submit the invoices and debit and/or credit notes issued monthly related to the exchange adjustment to share the exchange difference risk with the insurer.

Consequently, in the event of devaluation, under each type of contract and for each insured, the company will receive the proportionate premium based on the debit notes submitted by the insured at the time of their issuance.

Likewise, the insured has a kind of *exchange insurance* available to offset this risk and, consequently, the coverage will adjust to the actual credit of the insured transaction.

3) Trade credit term

Another characteristic of the agribusiness is the term of the trade credit. Depending on the product, the service and the area of trade, the term of the trade credit granted by an insured to the debtor may range between 30 and 365 days.

Trade credit starts with the delivery of the product or the rendering of the service, as agreed between the insured and the obligor to perform payment. It can be made effective through the issuance of a delivery note describing in detail the goods delivered and/or the service rendered, which will later originate the invoice. It is important to make it clear that ideally the delivery note should state the value of the goods and /or service rendered.

This special circumstance adds to the requirement for the credit insurance policy to take into account these operations through a correct underwriting, since two complementary terms coexist in the trade credit, each evidenced through different documents.

- Maximum term for issuing invoices

The insurer must determine the maximum term for issuing invoices as from the date of the delivery note issued; this term may range between 10 and 365 days

- Maximum trade credit term

The insurer must specify the maximum credit term for each debtor. This credit term must be explicitly stated in the issued invoice through its due date, which will be clearly detailed on a monthly basis. The term will become due on a date between the date of issuance of the invoice and 365 calendar days thereafter.

- Combined maximum trade credit term

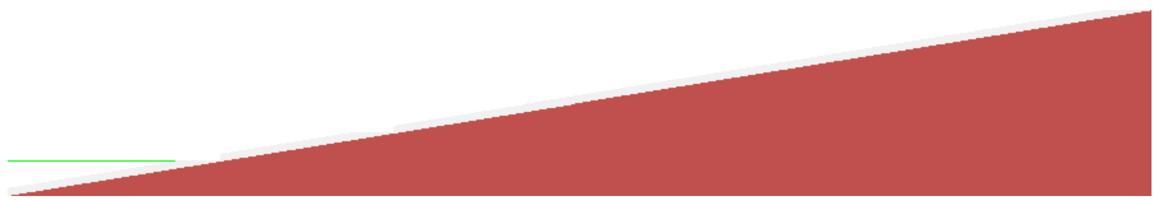
It is of fundamental importance that the insurer set the limit for both terms in the schedule so that the trade credit may never go beyond 365 calendar days from the date of the delivery note to the invoice express due date. This financial float is the difference in days between the beginning of the commercial transaction and its effective settlement.

In the agribusiness, more than 365 days' trade credit is detrimental to both the insurer and the insured. The credit term has a negative impact on the non-payment risk because during that period there is a greater exposure to risk, whether economic, financial, environmental, international, logistic, or other kind.

Furthermore, a longer term reduces profit, since there is a loss in the value of money, basically arising from financial interest, investment opportunity cost for the money not yet collected and the inflation factor associated with the loss of purchasing power.

Lower risk
Higher profitability

Higher risks
Lower profitability
Credited payment



Credit origin

Day 1 **Day 365**

In the agribusiness, these trade credit terms are habitual because the production cycle is annual and is divided into two harvest periods, gross and fine (depending on the size of the harvested grain).

- Fine harvest (wheat, rapeseed, lentils, barley, oats). Fine harvest is the name given to those winter crops which are sown from May to July and are harvested from November to January.

- Gross harvest (corn, soya, sorghum, sunflower). The gross harvest is the most important. Sowing time is from September to January depending on the crops.

4) Debtors' coverage

The credit insurance policy is designed to suit the commercial operation of each insured taking into account their global debtor portfolio with their individual credit limits and terms.

The insurer will grant the maximum exposure proposed by the insured with respect to a debtor after completing the risk analysis on the debtor's solvency.

Moreover, the insurer may implement a discretionary credit limit (self-assessment) for each credit insurance policy. This special condition is applied based on the structure and dispersion of the clients' portfolio and on the insured's credit policy. Furthermore, the insurer may propose a set of guidelines for self-assessed clients, which is in fact a credit management model to gather and complete information about the debtor; if the information is not unfavorable or negative and goes beyond certain standards, the client might automatically be included in a floating policy.

This amount as previously determined sets a credit limit on the insured for a debtor without the insurer's expressed authorization; for example, USD 15,000 or the equivalent amount in Argentine pesos.

Given this condition, debtors could be divided into two groups: one group includes the specified clients who are those individually assessed by the insurer and who would be beyond the discretionary credit limit agreed upon. The second group includes the unspecified (anonymous) clients, who are below the credit limit agreed upon.

Based on this division, the insurance company usually determines different coverage percentages with the value added tax (VAT) included.

- Specified (individually assessed) clients

Coverage ranging from 80% to 90%, calculated on the approved credit limit.

- Unspecified (self-assessed) clients

Coverage ranging from 60% to 80%, calculated on the agreed credit limit.

Accordingly, the policy must determine a deductible (threshold) for the notification of a threat of loss; this deductible is generally around USD 1500, or the equivalent amount in Argentine pesos.

5) Indemnification limit

The credit insurance policy must specify a maximum amount limit to be paid by the insurer during the term of the policy. This amount must not exceed the amount resulting from multiplying the minimum premium stated in the Schedule by x times (usually, 30 times the amount of the premium). If the earned premium is higher than the minimum premium during the same policy term, the one which is more favorable for the insured shall be used.

It is convenient to determine two indemnification limits: one for specified clients and the other for unspecified clients, individually considered. The global indemnification limit for specified clients must be determined by multiplying the premium. For unspecified clients, on the other hand, the indemnification limit may be an annual fixed amount in US dollars or the equivalent amount in Argentine pesos

In this way, a limited indemnification amount is likely to be available for the structure of each part of the portfolio, which is positive for both the insurer and the insured, since clear rules are set and a *stop loss* is determined.

6) Means of payment

The insurer must take into account the means of payment usually employed in the agricultural sector business transactions since they will have either a direct or an indirect impact on credit insurance

In some cases, supplies purchases may be paid with the debtor's credit card, in which case it is not necessary to consider this transaction for the policy. Another means of payment is the use of the debtor's own checks or third parties' checks which the debtor delivers to the insured. Checks are execution instruments which, in view of a certain obligation, could give way to the beginning of executive proceedings. These proceedings are, in fact, a request from a judicial authority for a payment order with a payment deadline; if this is not fulfilled, it is admissible to foreclose on the debtor´s assets.

Then, in order that a document may give rise to executive proceedings, it must not only give evidence of a clear, express and enforceable obligation but also provide conclusive evidence against the delinquent debtor.

Moreover, it is customary in the agricultural and livestock sector to obtain financing through transactions consisting in the delivery of a certain amount of tangible goods as consideration for purchased products or services. This method allows producers in the sector to manage the start-up of their production activities without a bank loan, and to plan payments with physical units they are more familiar with and find easier to generate.

This method has become widespread not only for the acquisition of supplies and services related to the agricultural sector (such as seeds, herbicides, fertilizers, agrochemicals) to develop primary production, but also for the purchase of machinery and spare parts.

When primary products are traded through barter transactions in which said products are exchanged for other taxable goods or service contract which are received prior to the delivery of the products, the taxable events attributable to both parties will be perfected upon said delivery

In present-day inflationary context in Argentina, this method has shown some advantages because it preserves the goods and products purchasing power and, in turn, when there is no delivery of money by any of the parties, there is no withholding of taxes (VAT, excise taxes, etc.)

Taking into account the length of the production cycle and the fact that revenues are obtained at the end of said cycle, this barter method is becoming increasingly important for the agriculture and livestock producers in order to obtain direct financing to invest in their production plans.

7) Loss ratio

The agricultural and livestock sector is exposed to a number of risks simultaneously. In spite of this, it has historically shown a moderate loss ratio in Argentina if we consider the last decade. This loss ratio is around 33% relative to the insurance premium.

The loss frequency is low because there are few losses which have derived from a certain number of risks in a given period of time. However, the extent of damage relative to the value at risk is greater, since these losses occur in the same geographical areas and production cycle timeframe.

In general, several suppliers share one and the same risk (the debtor obliged to payment), and they do not usually concentrate more than 45% of their offer of products and services on only one client, with the purpose of mitigating the ongoing risk

The time for the insurer to adjust a claim depends on the cause of the non-payment: in case of *de facto insolvency* (longstanding payment arrears), the maximum payment term should not exceed 180 days from the notice of non-payment. In case of *de jure insolvency* (ascertained through suspension of payment, liquidation, winding up arrangement, bankruptcy), the maximum payment term should not exceed 30 days from the receipt by the insurer of all documents evidencing the trade credit (proof of claims).

8) Rates and implicit costs

In the agribusiness sector, and due to the extent of the losses rather than their frequency, rates have little by little been brought to date on the rise and in line with a new awareness as regards taking insurance. In Argentina, the average rate for this sector is around 0.67%.

The insured amount multiplied by the rate is the *pure premium*, which is a linear consequence of the frequency and extent of the damage relative to a determined risk during a given period of time.

This pure premium results from a probability and statistics calculation made by the insurer taking into account past events and forecasting future ones.

On the other hand, the expenses related to the debtors' credit assessment generate a constant revenue for the insurance company, which is around USD 30 per each client assessed, approved and included in the policy.

Conclusions

The purpose of this work is to publicize the tools and the experience-based knowledge to underwrite credit insurance in the agricultural sector.

We have detected the needs of the sector and we should join efforts to "democratize" credit insurance for the agribusiness in a proactive way and apply it to the entire value chain.

If we could use this tool to insure the product originator, importer, distributor, trader, etc., the market would get into shape year by year and credit insurance would become standardized and produce sound and updated information, thus mitigating risks.

This continuous refinement process strengthens the financial system and improves trade generating greater foreseeable likelihood and profit for all market players.

The insurance market as a whole is facing a great challenge and must adapt to fit the needs of the agribusiness in particular.

This challenge involves extending the coverage and, besides, focusing on a greater penetration based on the ongoing training of individuals working in the market, including both insurance companies and brokers.

Going along this path, credit insurance will fulfill its key functions:

- Economic function: mitigate economic uncertainty about the future and thus improve efficiency, stabilize wealth, fight poverty and encourage saving, namely by creating credit, because credit insurance reinforces creditor's guarantee and allows the insured to take less conservative actions.
- Social function: to improve foresight creating certainty, capital and credit. Credit insurance creates certainty because it satisfies contingent needs caused by risk and socializes risks.

We could assert that insurance is a key factor to drive economic growth. Among other advantages, it provides economic stability, since business firms may transfer their risks to the insurance system, and allows funds to be funneled into other areas such as saving and investment.

Economy is driven by agriculture, which is a leading sector with a promising future. In the years to come, the world population, with its relentless growth, will need more and better food. The insurance market must be up to the economic growth and the challenge posed by the near future.

References

www.cedasaba.com.ar
www.cepal,org
www.cesceargentina.com.ar
www.chequeado.com
www.coface.com.ar
www.fertilizer.org
www.icisa.org
www.inti.gov.ar
www.minagri.gob.ar
www.segurosinsur.com.ar
www.solunion.com.ar
www.ssn.gob.ar