

RISK DIMENSIONS IN ENTERPRISES' FINANCIAL DECISIONS

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SUMMARY

Within the current conditions of the context, the managerial financial decisions involve five risk categories: Global Risk, Country Risk, Market Risk, Managerial Risk and Decisional Risk. These categories are always present in a concentric way, from the most general to the most particular. An investment project, for example, implies a decisional risk due to the possibility of investment variation, of revenues, costs, and technology, among others; but, also, this risk is associated to what happens with the enterprise, with the market where the enterprise operates, with the country where the market functions and with the political, economic, financial, and world system. Global risk originates in the interdependence, trans-nationalization and world economic and financial deregulation, the country risk under the political, economic and social conditions of each country, the market risk in the characteristics proper to each market and the managerial risk in the investment structure and of enterprise financing. From this we can see that a financial decision condenses and summarizes these five risk categories that converge and multiply testing even Markowitz and Sharpe's theoretical models, among others.

KEYWORDS Corporate Finances, Financial Decisions, Risk

INTRODUCTION

The risk in finances has deserved a great quantity of studies since this discipline becomes independent of the economy at the beginning of the XX century. As from the pioneer papers of Irving Fisher, considered by Pascale up to a certain measure for finances what Adam Smith is for economy, until the 1940's, the descriptive studies prevail. However, once ended the Second World War and with the technological advance and with the development of quantitative mathematics and statistical techniques, analytical finance studies reach a peak, developing the financial theory during the 1950's, 1960's and 1970's, mainly in the United States, until coming very close to their current configuration.

In these three golden finance decades, important studies are developed on budgeting, dividend policy, capital cost and financing structure, enterprises rating and papering capital, among others. In what concerns specifically to risk, Markowitz's contributions are important on portfolio theory and association between risk and return, of Von Neuman and Morgenstern's on game theory, of Tobin's on liquidity preference, of Hillier's on investment risks, of Hertz's on simulation, of Litner's on valuation of risky assets and selection of risk investments, of Miller and Orr's on cash balances under risky conditions, of Sharpe's on market risk, of Black and Scholes' on options rating, of Merton's on impermanence of the capital assets rating pattern, of Ross and Roll's theory on markets arbitration. In the 1980's and 1990's other studies were developed on financial markets, financial derivatives, added economic value, business rating, financial diagnosis and value creation.

As underlying phenomenon of all these studies and theoretical developments of academic character, we find in globalization a world wide process of the political, economic and financial relationships in a transnational scale that, in the background is always behind national,

intra-national, regional, sectoral and corporate economies. The mathematical and statistical models suppose that reality moves and acts on a certain level, a scenario where certain variables can cross each other and combine establishing nearly "natural" regularities and laws that allow to observe and to predict the future behavior of the economic and financial phenomena. However, the following crises could not be predicted, for example, the oil ones in 1973 and 1979, the Mexican ones of 1982 and 1994, the 1997 southeastern Asian one, the 1998 Russian one, the 1999 Brazilian one, and the continuous Argentine crises of 1980, 1990 and 2000, including the crack of the financial system at the end of 2001 and the exchange depreciation at the beginning of 2002.

The impossibility of quantitative prediction of these reality changes constitute a problem that generates the necessity of new theoretical developments that would allow one to approach the risk problem, from other perspectives. In this paper one tries to answer the following main matter: What does the risk of a corporate financial decision depend on under the current conditions of the context? This matter is approached in five dimensions that give place to successive developments in each section of the paper. In the first place, the globalization phenomenon and the validity of the, so called, new economic world order, that constitute the great scenario that serves as a framepaper for the national economies and which are global risk generators, are analyzed. Secondly, the national scenario and the constituent external and internal factors of country risk, which affect its sectoral and regional economies, are analyzed. In third place, these economic sectors and in what way they are influenced by external and internal factors constituent of the sectoral risk or by the market that affects to the enterprises that operate within it, are analyzed. In fourth place, the enterprises and the external and internal factors that constitute the managerial risk and affect the financial decisions made, are analyzed. Finally, in fifth place, the decision unit and the external and internal generating factors and decisional risks are analyzed.

THE GLOBAL RISK

Globalization is a complex and multifaceted phenomenon. Andrew Glyn and Bob Sutcliffe define it in two ways: **a)** as "*the geographical diffusion of the capitalists market relationships, as well as to their expansion to new environments of social reproduction*" and **b)** as "*the growing international economic interdependence and the growing aperture, that is to say, a growing interconnections density which is carried out within the capitalist world.*"

It is important to understand these two forms of conceiving globalization: as expansion of the market relationships to all social life and as a deepening of interrelations within the capitalist system. The first look is *outwards*, as *expansion*, and the second one is *inwards*, as *intensification*, but in both we are speaking of constituent *market relationships* as capitalist production. Globalization is a constituent element of capitalism. It is intrinsic to it, since its diverse stages of historical development, show, in fact, these two senses of outwards continuous expansion and of continuous inwards expansion.

In a previous paper I expose more widely on this topic (Agüero, 1996). nevertheless, I will develop some features that will allow us to understand this phenomenon for this paper.

We can locate the roots of the *globalization*, coinciding with Aldo Ferrer, in the origins themselves of commercial capitalism at the end of the Middle Ages and beginning of Modern Times. But we can also locate said roots at a more recent date, as I sustain it in my aforementioned paper, that is, in the world economic expansion that begins after the end of the Second World War. Why this more recent placement and not at the beginning of Modern Times?. Because globalization acquires an enormous dimension and an immediate impact at planetary scale which it could not have in Modern Times, as this immediate expansible effect is given fundamentally by the technological level of development, reached as regards transmission and reproduction of information flows.

Between 1945 and 1975 the world economy grew at an average rate of 4 to 5% yearly. World trade at a much higher rate. Three aspects are decisive for this growth and they

constitute the globalization roots: **a)** The development of the transnational corporations, **b)** The development of world banking and **c)** The technological development. These three factors are interrelated and they potentialize themselves mutually.

The United States goes ahead with the Marshall Plan for postwar European reconstruction period, it creates the International Monetary Fund (IMF), the International Bank of Reconstruction and Development (IBRD) and it establishes the gold parity for the American Dollar as a means of payment and international reserve, backed by the fact that it had in its power 52% of the world gold. The North American enterprises expand in Europe and in Latin America and, behind them, the North American banks expand. Although national, colonial and foreign banks existed, which acted in certain countries, the expansion of North American banking, generated the emergence of big banks which include those three types, to conform, first, international banks; then, multinational banks and, lastly, transnational banks. This expansible process of capital is favored, in turn, by the development of physics (especially electronics), chemistry and mathematics, the invention of the computer, the development of telecommunications and aerospace scientific-technological programs, motivated in turn by the *cold war* between Russia and its allies of the Soviet socialist block forming part the Warsaw Pact and United States and its allies of the North Atlantic Treaty Organization (NATO).

The 1973 and 1979 oil crises cause the end of these three decades of World economic growth. This phenomenon marks *the birth of globalization*, since its impact extends immediately to the whole political, economic, financial and social world, reaching planetary scale, without distinction of economic systems or of countries' development degrees. Crude oil, main capitalist industrialized countries energy input, in the world, which cost between U\$S 0,10 and U\$S 0,20 per barrel, increased more than 400%, between the end of 1973 and beginning of 1974, putting in check the whole developed countries productive apparatus, due to production costs.

In 1974 the oil producing countries obtained more than 100 billion dollars of revenues. World economy enters into a deep recession with inflationary effect. This mass of petrodollars is deposited in North American and English banks that in turn put it into circulation again granting loans to the governments to absorb the rise of prices of the inputs and industrial products and

the deficits of its payments balances. This generates an enormous growth of the non developed countries foreign debt, which cannot absorb the negative flows of capital, increasing the price of their products, as done by the industrialized countries that achieve in this way to transfer to the other countries the costs of the oil crises.

The world economy enters into a stage of production system transformation, which passes from being in the same country or place to be divided into different countries and world regions. This production form, kind of modular and flexible, is based on the constant reduction of costs, taking advantage of the comparative advantages of each country or region and the benefits of industrial promotion and tax remission policies. This process is favored by the commercial aperture and the world economy deregulation, promoted by the United States.

In the 1970's and 1980's globalization is developed when separating the flows of financial capitals from the commercial ones, and generating the emergence, expansion and consolidation of international financial markets. They developed and integrated the four specialized basic markets that operate in the world: money market, security forex exchange market, derivatives market and capital market.

In the 1990's globalization expands definitively with the fall of the Soviet Socialist régime, the worldwideness of the capitalist system, the consolidation of the economic blocks and the expansion of electronic money. There appears in the world a new economic order whose political-ideological meaning reveals the intervention of United States and its allies in the *gulf war* to defend peace and to sanction military and economically those countries that violate it, as does Iraq when invading Kuwait. The United States, Canada, Germany, France, Italy, Britain, Japan and Russia conform the Group of the Eight, the World's most developed Countries, known by their acronym G-8. This group of countries becomes a kind of governing body that manages world economy and politics, establishing sanctions for the countries that do not follow or accept its directives.

The United States leads the G-8, due to its incidence in world economy when its Gross Domestic Product, represents between 25 and 30% of the World Gross Domestic Product. This leadership is also exercised regarding the policies followed by international financial organisms,

as it has the biggest participation, as member country and the enough power as to influence on the decisions that are adopted as to world economy general orientation.

The new economic World order is unipolar and multipolar. The large economic blocks constitute countries' regional integration spaces as political strategy to increase economic power and competitiveness at global scale. The North American Free Trade Agreement (NAFTA), led by United States and also integrated by Canada and Mexico and the European Union (EU), led by Germany and France and integrated by more than two dozens European Continent countries, constitute the world's two antagonistic **hegemonic blocks**. The dispute among these two blocks is strong and in various fields: exchange parity between dollar and euro, science and technology, agricultural subsidies, alliances with third countries and regions, political positioning in the international organizations, among others.

The new economic World order, is transnational and implies the weakening of countries' national sovereignties, and of the and of the capacity to fix policies that respond to national interests without the interference of the world's hegemonic countries. Global risk originates, in fact, in this vulnerability of the other countries re the hegemonic presence of a very reduced group of countries that govern the world and establish the political and economic direction outside of the national frontiers and at global scale, only responding to their own interests.

COUNTRY RISK

Countries are influenced in a very different ways by the global risk. What does this variation depend of? The answer is given by a group of internal conditions that are given to the interior of each country and that obey a multiplicity of factors that combine to generate certain features, that serve as indicators of a larger or smaller presence of country.

The analysis of the internal conditions of a country can be carried out identifying a *critical nucleus* of large relevant categories for the evaluation of the country risk and its main

generating factors. These large categories are: **(1)** the political situation, **(2)** the economic situation and **(3)** the social situation.

1. The *political situation* of a country can be linked to 6 critical factors: **1.1.** political stability, **1.2.** political legitimacy, **1.3.** governability, **1.4.** public transparency, **1.5.** judicial security and **1.6.** the law enforcement degree.

1.1. *Political stability* refers to the continuity in the time, of a certain government system. This continuity is evaluated **(a)** by the absence of ruptures in government's system and **(b)** for its society institutionalization degree. In the Argentine case, political stability is observed in the democratic system, from December 10th 1983 up to the present. Several democratic governments have succeeded each other, in peaceful and legitimate form voted by the electorate.

1.2. *Political legitimacy* has to do with **(a)** the origin of power, **(b)** the way of exercising power and **(c)** the representation of the interest of those governed. In the Argentine case, the current President assumed power with little more than 22% of electorate votes, that is to say, with scarce origin genuineness, but the exercise of power from May 25th 2003 and the representation of interest of most of the Argentines allows the President to enjoy a high-level of political genuineness at the present time.

1.3. *Governability* refers to the real and concrete possibilities that a ruler possesses to exercise power and to make government decisions that have citizens' acceptance and support. In the Argentine case, on several opportunities the presidential system had its governability crises. This happened when the presidents did not have the majority in the national congress, E.g. after the 1987 national elections, when most of elected governors and members of the National Congress belonged to a political sign, different to the President's one.

1.4. *Public transparency* is linked with the republican principle of state acts publicity, rendering of accounts, and rulers and officeholders' non involvement in acts of corruption. A key aspect in the evaluation of this item is the public trust that rulers and government officials enjoy. For the Argentine case, this is one of the biggest problems through which civil and military

governments have come across, they have not been able to improve public transparency of the administration.

1.5. *judicial security* refers to the continuity in time of a judicial norm or of a certain normative system. In the Argentine case, the tax laws, for example, are subject to continuous modifications, the same as other basic norms as that of social security, labor, previsional and penal rights, among others, thus affecting judicial security and country trust.

1.6. *Law enforcement degree*, refers to the independence of the judiciary and its effectiveness and efficiency for justice and trial administration and punishment of those who infringe the laws. Key aspects on this item, are the choosing of judges and the organization of the judicial system. In the Argentine case, there are even numerous citizens' demands due to the non fulfillment of constitutional norms and laws that regulate key rights as that of property, even on behalf of the very State itself and official organisms as the Argentine Republic Central Bank.

2. *The economic state* of a country can be linked to 6 critical factors: **2.1.** economic growth, **2.2.** income distribution, **2.3.** employment level, **2.4.** fiscal situation, **2.5.** monetary stability and **2.6.** external situation.

2.1. *Economic growth* is the main exponent of a country's good economic perspective. It is tied **(a)** to the investment concept, **(b)** of saving capacity, **(c)** population's consumption level, **(d)** public expenditure and **(e)** exports and imports levels. It allows to evaluate the level of economic activity and the capacity of a country to generate wealth. The lack of economic growth, like in the Argentine case for the last 5 years, increases country risk, due to the expectation of not being able to assist the population's minimum economic necessities and the demand of employment sources, with the social consequences of not only diminishing life quality but increasing poverty and social exclusion.

2.2. *Income distribution* allows to evaluate in what way wealth produced by a country is distributed among the factors that contributed to generate it. An equal distribution of wealth produces harmonic and balanced development of a country. On the contrary, an unjust distribution of wealth will produce transfers of revenues between different groups and social

sectors, the economic concentration being favored, and the increase of poverty and social inequality. In the Argentine case, very recent studies proved the occurrence of this situation during the 1990's.

2.3. *Employment level* allows to evaluate in which way the economy of a country is able to generate jobs and thus improve income and the population's consumption. High unemployment levels, like in the Argentine case starting from mid 1990's, increased the country risk, due to the impossibility of generating saving, consumption and investment capacity and for the social consequences that it brings because lack of jobs.

2.4. *Fiscal situation* allows to evaluate the State's role, in the economy of a country. These are important aspects in this sense **(a)** the analysis of fiscal collection, **(b)** level and composition of public expenditure, **(c)** tax deficit, **(d)** domestic and external public indebtedness and **(e)** the levels of domestic monetary reserves. In the Argentine case, country risk generating factors are high public indebtedness, high tax evasion levels, the drop of domestic monetary reserves and the persistence of high tax deficit levels.

2.5. *Monetary stability* shows the degree of a country's currency credibility and the preference of the inhabitants to use it as means of payment in the average transactions. It allows to evaluate the trust that country's economy generates, and the favorable expectations surrounding it. A stable currency favors the decrease of country risk, while the variations of prices and of the value of the currency motivate the growth of country risk, due to the distrust it generates. In the Argentine case, during most of the 1990's the national currency remained stable and that contributed to the low-level country risk, although due to other factors - for example the high external public indebtedness - this tended to go up.

2.6. *External situation* of a country shows the relationships of this with the world. There are important aspects on this matter **(a)** domestic external vulnerability, **(b)** economy aperture degree, **(c)** physical and monetary volume of exports and imports, **(d)** balance of balance of payments and trade balance and **(e)** the composition, origin of imports and destination of domestic exports. The dependence of external capital flows generate domestic external vulnerability and therefore increase the influence of global risk as component of country risk . A

high participation of the total of exports and imports in the gross domestic product of a country show a high degree of economic aperture towards the world and of exchange with other countries. This is favorable for the country if the balance of the trade balance is favorable, but it is a vulnerability indicator in the contrary case. The analysis of physical volumes of goods, shows the domestic productive effort and the analysis of monetary volumes, the influence of international prices on which the country does not have any influence nor control. The analysis of the balances of the trade balance allows to evaluate the capacity of reserves generation that the country has. In the Argentine case, from mid 2002 the favorable balances of the trade balance influenced in the stabilization of the domestic currency and of the exchange rate regarding the American dollar, although it does not manage to reduce country risk level, that continues being high for non economic reasons.

3. *Social situation* of a country can be linked to 6 critical factors: **3.1.** population characteristics, **3.2.** quality of life level, **3.3.** degree of human development, **3.4.** justice and social equity, **3.5.** the capital stock and **3.6.** the resolution of the social conflicts.

3.1. *Population characteristics* include aspects like population pyramids growth, population's distribution, ethnic composition, cultures, religious beliefs, values, ways of life and socialization ways. The population's age and growth rate are key factors to analyze the profile of the labor offer and demand of goods and services. The population's distribution is an important factor to analyze the occupation of territorial space and the balance between the different regions of a country. The ethnic-socio cultural aspects of a population are important to know social behaviors and factors generating identity, integration and social cohesion.

3.2. *Life quality level* refers to availability and access possibilities to a set of goods, services and indispensable basic conditions for survival, welfare and social reproduction: health, feeding, housing, public services, education, free time, work and life environment. The low levels of life quality, linked with situations of poverty and marginal social status, increase country risk due to the social consequences brought about by them.

3.3. *Degree of human development* allows to evaluate population's life expectancy, growth needs and development. These are important aspects **(a)** education levels reached, **(b)**

social integration levels, **(c)** cultural and social development, **(d)** cultural goods and services demand, **(e)** individual and group initiatives and **(f)** integration and family stability.

3.4. *Social justice and equity* refer to the linking between the economic and the social. Important aspects are **(a)** the degree of effective validity and recognition of human, political, economic and social rights, **(b)** the attention of problematic social situations and **(c)** the attendance, protection and promotion of the vulnerable social groups.

3.5. *Social capital* implies the development of social conscience, of solidarity and capacity of organized action for the resolution of the problems that affect certain human groups. Important aspects are **(a)** the existence of social organizations, **(b)** the training actions and community development, **(c)** association, cooperation and mutuality, **(d)** invigoration of civil corporation and **(e)** the social movements.

3.6. *resolution of social conflicts* has to do with the institutional mechanisms and the devices put into practice for the resolution of conflicts that emerge in the different social groups. These conflicts are of a different nature in each group and emerge due to diverse matters, motives, interests and purposes. The resolution capacity of social conflicts diminishes the country risk when these mechanisms that are capable for the negotiation and the search of solutions to the different problems, are institutionalized.

SECTORAL OR MARKET RISK

An economic sector gathers all the enterprises that are devoted to one economic activity and, therefore, they are their peers. What differs one sector from another is the kind of activity these enterprises develop. Within one same sector the risks are similar or equivalent and they originate in the global risk, in the country risk and in the nature of the activities characteristic to the sector.

We can affirm that global risk and country risk go through the activities of the sector and, therefore, the risk originated in said activities constitutes a condensation of those two risks.

Although analytically global, country and sectoral risks, are separated, really this last one is the result of the synthesis and condensation the other two.

Porter's model for the structural analysis for the industrial sectors maintains its validity in what it does to identify the threats that affect equally the whole sector, but that differentially affect each enterprise, depending on the abilities developed by the management to face said threats. In this model, the threats constitute the risk which affects the sector.

All the economic sectors of a country are affected equally by global and country risk, but each sector has its own risk, in function of the nature and characteristic of its activities.

In a generic way, the primary economic activities are riskier than the industrial activities, in any country, due to several reasons:

- " For reasons linked with nature
- " For the period of investment immobilization
- " For the smaller investment reversibility
- " For market conditions

The primary activities are tied directly to nature and therefore they are influenced by the conditions of the soil, fauna, flora, climate, among others. On the other hand in the industrial activities the link is with the inputs. The production process in this case is closed and controlled, on the other hand in the primary activities the process is open and barely controlled.

The primary activities require long periods of capital immobilization. Cattle production, for example, has an immobilization horizon in work capital of 2 to 3 years. On the other hand, in the industrial activities, the duration of the operative cycle does not generally exceed the year.

It is more difficult un-invest in primary activities than in industrial ones. Wire fencing a field, for example, is not done to undo it in a short time, but it has to resist the passing of time. The decision of exploiting a field implies immobilizing resources for long periods of time, on the other hand in the industry these periods are briefer and the investment can be undone at any moment.

Finally, the market conditions for the primary activities are more difficult than for the industrial ones, because different commercial commitments are generated and the variations of

prices are frequent, the same as the delivery terms. In industry contracts are more stable and the variations of prices and delivery terms change less.

ENTREPRENEUR RISK

An enterprise has an investment and a financing structure. The first one is constituted by the group of assets that integrate the fixed capital and the work capital. The second by the group of sources of finance with own capital and with third party capital. The investment structure generates economic risk, because it is linked with real markets, clients, sales, suppliers, costs, expenses. The financing structure, on the other hand, generates financial risk, because it is linked with financial markets, funds suppliers, capital cost, interests, taxes.

Managerial risk is a condensation of economic and financial risks, besides sectoral, country risk and global risks.

The proprietary entrepreneur assumes all these risks with the expectation of obtaining some kind of return type that compensates them, and the time value of the money. But this expectation is of residual nature, since the enterprise must fulfill the payment to the creditors, independently if he does or does not obtain fund surpluses, while to reward the proprietors first, one must pay the creditors first, and then, if there are fund surpluses, reward them.

The economic sector affects equally all its integral enterprises, but the risk of an enterprise in particular depends, also, on the form of combination of the investment and financing structures and of the goods and financial market conditions.

The variation of the operative result before interests and tax on the earnings, due to a certain variation of sales, is measured with the operative leverage that serves as enterprise economic risk measure. On the other hand, the variation of the net operative result, due to a certain variation of the operative result before interests and tax on earnings, is measured with the financial leverage that serves as enterprise financial risk measure.

RISK OF AN ENTREPRENEUR FINANCIAL DECISION

The financial decisions of the enterprises are fundamentally of three types: investment, financing and disbursement of dividends. These decisions are made under risk conditions derivative of the very nature of the decision and of the influence of managerial risk, of the economic sector risk, where the enterprise operates, domestic sector to which it belongs and global risk.

The financial decisions condense all these types of risk, without possibility of separation or of discrimination reality, since they are implicit, being a constituent part of the decisions. Financial decisions always are risky and always contain within themselves these five risk levels.

Most of the financial risk literature, does not distinguish these levels, but rather it approaches the problem as an only individual risk, applying the well-known statistical tools of measurement and evaluation.

CONCLUSIONS

The treatment of the risk problem in the entrepreneur financial decisions, does not finish with the use of mathematical and statistical tools, no matter how sophisticated they were. On the contrary, they should be supplemented with the non quantitative analysis of other matters, such as those mentioned, very synthetically, in this paper. This will doubtlessly improve, the quality of the financial decisions, when incorporating other elements that are not commonly considered when pondering such decisions risks.

This paper only seeks to outline this matter. It does not constitute a theoretical model neither an interpretive framework for the problem. On the contrary, the matters outlined in it, should be elaborated and founded by means of research processes which will be faced in the future.

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