Capital Expenditure Financing in Italian Municipalities: An Analytic Approach

# Capital Expenditure Financing in Italian Municipalities: An Analytic Approach

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### Introduction

The economic literature finds a strong link between infrastructure endowment and economic growth. In recent years, the Italian infrastructure backwardness has become a central theme in the national political, economic and social debate. By definition, infrastructure investment implies the allocation of financial resources at present to obtain future advantages. The temporal gap brings up questions related to the financing mechanism, which is one of the most interesting themes of the debate.

Traditionally, within the Italian system of derived finance and according to the intergenerational equity principle, Italian Municipalities (IMs) have financed investment expenditures by resorting to borrowing, for a *minimum* amount with the banking system, and for the most part with the Cassa Depositi e Prestiti S.p.A. (CDP). Unfortunately, this financing method has imposed heavy burdens on future budgets, in terms of refund of interest and capital. Moreover, in 2001, the reform of the Constitution (especially the part regarding Local Authorities (Las), Title V, Part II) has strengthened the political, administrative, and financial autonomy of LAs.

Unfortunately, within the new system of local autonomy, the main problem is the asynchrony between the broadening of municipal tasks and the insufficiency of their fiscal capacity. The renovated formulation of Art.119 of the Constitution (directly referred to local financial autonomy) reinforces the rule of financial autonomy of LAs, recognizing to municipalities the use of the fiscal lever, and giving certainty to the principle of good administration, based on the correlation between the acquisition and allocation of resources at territorial level. However, legal uncertainty and delays in defining and applying the mechanisms of "fiscal federalism" have created a context of ambiguity and confusion for LAs finances, compromising the correct programmability of financial resources and the effective functioning of their autonomy. The situation is worsened by the fiscal discipline imposed by the European Union (EU) under the Treaty of Maastricht and the Stability and Growth Pact (SGP). <sup>1</sup>

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<sup>&</sup>lt;sup>1</sup> Stability and Growth Pact (SGP) is an agreement by EU member States related to their conduct of fiscal policy, to speed up and maintain the convergence process of the Economic and Monetary Union of the EU. Following the SGP prescriptions, the member States must respect: an annual budget deficit no higher than 3% of Gross Domestic Product; and, a national debt lower than 60% of GDP or approaching that value.

Applying the New Public Management (NPM) principles, IMs have adopted new financing strategies (the so called "innovative finance"), based on the implementation of business-like techniques (such as capital budgeting) to guarantee more rational choices and optimize the value for money, within a context of a less hierarchical model of public administration, more directed to the achievement of results and to the evaluation of performance. Over time, a wide range of possible financing instruments were created to overcome the financial difficulties of the IMs. Generally speaking, the recourse of IMs to innovative finance has proved to be an obliged choice, especially for the large Municipalities, like Rome, Milan, Naples and others; for the medium/ small Municipalities the scenario appears different for various reasons. A great number of Municipalities, especially in the South, are incapable of or reluctant to use advanced analytic approaches for investment decisions. The nature and the level of sophistication of these new instruments may be helpful or harmful for the Municipality in question, depending on the nature and the level of sophistication of these instruments.

This study seeks to answer the following questions: 1) are IMs really implementing innovative finance for their investments? 2) In the affermative case, how, when, and at which level? 3) Do the IMs employ any analytical method to support the local financial decision-making?

In addressing these three sets of questions, this study combines the analytical and political aspects of local financial evaluation and choices. In particular, it proposes the application of the Analytic Network Process (ANP), a multiple criteria methodology, able to consider simultaneously, factors of quantitative and qualitative nature (or rather tangible and intangible variables) that are supposed to play an important role in the local financial decision-making. The application takes into consideration selected municipalities in the province of Frosinone (in the Lazio region) in the centre of Italy. The use of surveys has also been applied. Results have shown that IMs are still largely applying traditional finance with a significant influence of the political system.

The first section illustrates the Italian infrastructure backwardness. The second section describes the evolution of the Italian system of financing public investment. The third section explains the current difficult situation of scarcity of financial resources. The fourth section introduces the ANP and its application in this field of study. The fifth section focuses on the application of an ANP model to the selected municipalities and its findings. The conclusion discusses the results and attempts a few suggestions.

### The Italian Infrastructure Backwardness

In the global sphere there is an increasing attention to public infrastructure, because of its relevance in stimulating economic growth, and in improving competitiveness among areas at global, national and territorial dimension.

According to the economic literature, the level of basic infrastructure endowment of an area is able to increase its productivity, ensuring high level of growth. Generally, industrialized countries include more developed areas, often provided with excessive density of productive activities, and infrastructure endowment, areas with intermediate level of development, and backward areas. Italy represents one of the most well known examples of

the described phenomenon <sup>2</sup>: the Italian infrastructure endowment level is low, if quantitatively and qualitatively compared with the average standards of the other European, and world Countries <sup>3</sup>. In addition, the Italian situation worsens when considering the impressive lack of homogeneity among different areas inside the Country, especially between the North and the South<sup>4</sup>. Principally in the South, regions are not in line with the European standards, and vastly inferior to the major oversea competitors.

Different levels of development within the country imply considerable differences in the contribution, in terms of productivity, and affluence that different factors of development can generate in territorial areas<sup>5</sup>. The Italian backwardness, at national and local level, points out the necessity for Italy to cover this gap, in order to ensure growth, and competitiveness to the country, and make it able to compete in the global world.

## **Financing Public Investment in Italy**

The Traditional Model of Derived Finance

del Mezzogiorno. Bologna: Il Mulino, pp. 33-50.

Since the end of the 1960s, the Italian system of intergovernmental relations has been characterized by the centralized power of the State endowed with a unitary, monolithic structure. From the financial point of view, the Italian system of intergovernmental relations has been characterized by strong centralization of fiscal revenues and a large decentralization of public expenditures, following a model defined as "derived finance". Local finances have become, for the main part, dependent on transfer payments coming from the national budget<sup>6</sup>,

<sup>2</sup> For an accurate description of the Italian economic system, read Istituto Nazionale per il Commercio Estero, (2005). *La posizione competitiva dell'Italia nell'economia internazionale*. Roma; Acconcia, A., Del Monte, A., (2000). "Regional Development an Public Spending: the Case of Italy" in *Studi economici*, Vol. 55, No. 72, pp. 5-24; Barbieri, G., Causi, M., (1996). "Infrastrutture e sviluppo territoriale: un'analisi delle province italiane" in *Economia pubblica*, No. 2, pp. 31-58; Brusio, G., Piperno, S., (1989). "La distribuzione regionale delle spese per investimenti infrastrutturali pubblici: tendenze, cause ed effetti" in *Rassegna economica*, No. 2; Del Monte, A., (1996). "Infrastrutture e sviluppo del Mezzogiorno" in Costabile L., (edited by), *Istituzioni e sviluppo economico* 

<sup>&</sup>lt;sup>3</sup> Literature highlights the difficulty in making comparisons at international level about public investments. This is principally due to lack of homogeneity in the headwords "public sector" and "public investment". Also the concept of infrastructure is not always defined in the same way. Regarding that, read Biehl, D., Brancalente, B., Di Palma, M., Mazziotta, C., (1990). "La diffusione territoriale delle infrastrutture: un'analisi per l'Europa e per l'Italia" Di Palma, M., (edited by) *Le infrastrutture a rete*, in Centro Studi Confindustria – Ecoter. Roma: Sipi. However, an idea about the Italian condition compared at the European and world dimension can be formulated consulting, respectively, the European Commission, (2006). *European Competitiveness Report 2006*, http://ec.europa.eu/enterprise/enterprise\_policy/competitiveness/index\_en.htm, and Institute for Management Development, (2007). *IMD World Competitiveness Yearbook 2007*. Losanna.

<sup>&</sup>lt;sup>4</sup> References directly related with the Italian situation are extremely wide. Among the others, look at Istituto G. Tagliacarte, (2001). *La dotazione di infrastrutture nelle province italiane 1997-2000*, ciclostilato; Di Palma, M., Mazziotta C., (1998). "Condizioni ambientali, infrastrutture e funzionamento della macchina amministrativa" in *Economia italiana*, No. 1, pp. 95-126; Wolleb, E., Wolleb, G., (1990). *Divari regionale e dualismo economico*. Bologna: Il Mulino.

<sup>&</sup>lt;sup>5</sup> Becattini, G., (1989). *Modelli locali di sviluppo*. Bologna: Il Mulino; Rostow, W., (1962). *Gli stadi dello sviluppo economico*. Torino: Einaudi; Solow, R. M., (1994). *Lezioni sulla teoria della crescita endogena*. Roma: NIS.

<sup>&</sup>lt;sup>6</sup> This institutional order is found in the time of high difficulty experienced by Italian LAs, during the "reconstruction" after the II World War.

causing the abolition of local taxes and an expansive trend of public expenditures, especially the current ones.

With specific reference to investment expenditures, traditionally public investment has been primarily financed by the recourse to debt<sup>7</sup>, especially long term loans (*Incomes from Collection of Debt*). Over time, LAs have contracted loans for a minimum part with the banking system, and for the major part with Cassa Depositi e Prestiti S.p.A. (CDP)<sup>8</sup>, an institutional body, which has historically carried out the public function of supporting regions and LAs in realizing public investment, providing loans at more advantageous conditions compared with the banking system<sup>9</sup>. Over time, the activity of the CDP in supporting LAs has expanded enormously and the CDP was named "the bank of LAs".

Within this framework, it is evident that the activity of financing public investment has not required particular competence on the part of local public administrators. Competences were limited to verifying the availability of revenues coming from own resources or to recurring loans provided by the CDP.

### The New Model

At the end of the 1980s, the model of derived finance revealed all its contradictions and resulted in an extraordinary rise of public expenditure and public deficits, in conflict with the European financial discipline. The convergence criteria stated by the Treaty of Maastricht<sup>10</sup> and by the SGP<sup>11</sup> have impressed a serious commitment to change.

<sup>&</sup>lt;sup>7</sup> With reference to the financing of investment, see: Carnevale, R., (1999). "Il finanziamento degli investimenti: specificità, rischi e garanzie" in *Banche e banchieri*, No. 4, pp. 320-338; D'Aristotele, E., (1998). "Finanziamento e contabilizzazione delle spese per progettazione di opere pubbliche" in *Azienditalia*, No. 9, pp. 59-92; Falcone, G., (2000). "Il finanziamento delle infrastrutture pubbliche: dal fondo perduto al credito di investimento" in *Mondo Bancario*, No. 1, pp. 39-41; Nicoletti, G., (1996). "Il finanziamento degli investimenti nelle aziende speciali" in *Azienditalia*, No. 12, pp. 910-914; Passacantando, F., (1999). "Finanziamento delle opere infrastrutturali: ruolo e orientamento della Banca Mondiale" in *Rassegna Economica*, No. 2, pp. 285-295; Salvi, A., (1999). *Finanziamento degli investimenti pubblici. Contabilità: finanza e controllo*. Milano: Il Sole 24 Ore, No. 12, pp. 1159-1171.

<sup>&</sup>lt;sup>8</sup> The traditional name of this institute has been simply Cassa Depositi e Prestiti. Recently its institutional form has been redefined. In fact, the legislature has provided for the transformation of CDP from an institution directly belonging to the public sector into a joint-stock company. In fact, the reasons of the change are very complex, and are strictly connected to the European system. Firstly, the new society is more compatible with the principles of competition and the European attitude toward the state aids. Secondly, the transformation of CDP into a joint-stock company has been a strategic financial operation. In fact, rather than being a proper operation of privatization, the change into a private law society of CDP is an operation necessary to respect the wider aim of the reduction of the public debt established by the SGP. In fact, through the constitution of the new society the government has transferred to CDP a relevant quota of public equity interests, in order to allow the Treasury Ministry of having back the liquidity necessary to reduce the public debt through the assignment of financial activities. Generally, the acquisition of the societal form has been judged like a artifice used to improve public finances: the state has deprived itself of appreciable equity interests, even if it has given up them at a society that results to be under the direct control of the state.

<sup>&</sup>lt;sup>9</sup> CDP has been established by the Law November 18<sup>th</sup> 1850, No. 1097. This is the legislative reference to the formal establishment of CDP, in the formulation which was closer to its current mission. However, there have been experiences of the so called named "Casse di ammortizzazione del debito pubblico" in the states that constituted the pre-union Italy. It was established on the model of the French entity called Caisse des depots et consignations, and established by the Law April 28<sup>th</sup> 1816 (Prioret, R., (1966).

<sup>&</sup>lt;sup>10</sup> The Treaty of Maastricht (February 7<sup>th</sup> 1992) stated specific policies to keep under control the public national finances, fixing four criteria of convergence, necessary to introduce the EMU. The convergence criteria are so defined: the *stability of prices* means that the inflation rate registered in the 1997 did not overcome more that the

In addition, since the 1980s, also the traditional model of public administration no longer appeared to be adequate to the changes of the society. Reform movements in public management (particularly the "New Public Management" (NPM) and the Public Entrepreneurship Approach (PEA) took its place. A new framework that privileges public accountability, results and performance, according to efficiency, effectiveness and inexpensiveness criteria, and the principle of rigid separation between politics and administration has become fundamental. The pivotal concept is the *Value for Money* and citizens' participation, which require more transparency and accountability. In order to enhance public efficiency, competition and private market principles and methodologies were introduced to promote more open, transparent, effective, efficient and accountable public administration, as well as citizen-focused performance oriented budgets.

### Decentralization

In Italy, the reform process started with the Law June 8<sup>th</sup> 1990, No. 142 that represents the milestone in the definition of a renovated institutional, administrative and financial system of LAs. By the end of the 1990s, the Constitutional Law November 22<sup>nd</sup> 1999, No. 1 and the Constitutional Law October 18<sup>th</sup> 2001, No. 3 have redefined the institutional framework of the State, recognizing equal institutional weight of the State, regions and LAs and increased the administrative functions and competences of LAs. Specifically referring to the financial dimension of this new system, it is oriented toward the application of the models of fiscal federalism<sup>12</sup>. The reformed Constitution (Art. 119) states the principle of financial autonomy of income and expenditure for all governmental levels, that is made of own regional resources and grants coming from the equalizing fund <sup>13</sup>. Unfortunately, even if this part of the constitutional reform is the essential one to guarantee the concrete application of a decentralized system, it has remained uncompleted <sup>14</sup>.

1,5% the average inflation rate registered in the three countries with the lowest levels of inflation; the *stability of the interest rates* signifies that in the 1997 the nominal rate of the long term state security did not overcome of more than 2% the average rate of the three states which have obtained the best results in terms of inflation; the *currency stability* means that for two years the national currency has not suffered devaluation; finally, the stability of the *public finance* implies that at the end of the 1997 the ratio between the net borrowing of public administration and the Gross National Product had not be more that 3%, and the ratio between the national debt and the Gross National Product had not overcome the 60%.

<sup>&</sup>lt;sup>11</sup> The SGP was the result of the fear that, after the entering into the EMU, countries could not respect the fixed criteria, generating an economic and currency instability within the Union. It was defined in 1995, following the proposal of the Treasury Minister of Germany Theo Waigel, which regards the stipulation of a sort of stability pact. Its origins can be found in the Resolution of the European Council No. 97/C236/01 signed in Amsterdam the June 17<sup>th</sup> 1997, and in two Council Regulations of July 7<sup>th</sup> 1997, No. 1466, and No. 1467, respectively regarding the strengthening of the supervision above the budget balances as well as the coordination of the economic policies, the acceleration and the clarification of the methods to implement the procedure for the excessive deficit. Kostoris Padoa Schioppa, F., (2005). "La riforma del Patto di Stabilità e Crescita" in Guerra, M. C., Zanardi, A., (edited by), *La finanza pubblica italiana. Rapporto 2005*. Bologna: Il Mulino, pp. 195-229.

<sup>&</sup>lt;sup>12</sup> Literature about fiscal federalism in Italy is wide. Among the others: Ladu, G., (edited by) (2005). *Percorsi del federalismo in Italia e non solo*. Roma: Edizioni Scuola Superiore della Pubblica Amministrazione; Antonini, L., (2005). *Verso un nuovo federalismo fiscale*. Milano: Giuffrè.

<sup>&</sup>lt;sup>13</sup> The expression "own resources" means that regions and LAs have to be provided with own taxes and sharing of revenue taxes. While, the equalizing fund is defined as a function of the different fiscal capacity, according to a system designed to ensure the social solidarity.

<sup>&</sup>lt;sup>14</sup> The application of the successive Legislative Decree February 18<sup>th</sup> 2000, No. 56, on fiscal federalism, has found many difficulties, principally due to the shortage of precision and clarity of the concrete mechanisms for the fiscal federalism and to the implied differences among richest and poorest regions in the country.

# The Internal Stability Pact

To follow the Maastricht criteria and SGP restrictions, Italy has imposed severe restrictions to the sub-national levels of governments, through the annual Internal Stability Pact (ISP)<sup>15</sup>. Regions and LAs having more than 5.000 inhabitants<sup>16</sup> have to accomplish the progressive reduction of the borrowing level. This aim can be achieved through the reduction of expenditures and the rise of efficiency and productivity, Over time, the application of the ISP has resulted extremely complex, especially because of its continuous annual updating through the finance acts, reducing the municipal autonomy, limiting the local capacity to recur to debt, stiffening the budget and the financing of investments.

## **The Scarcity of Public Funds**

Within the variegate scenario described above, LAs are in an extremely complex situation. The progressive reduction of the amount of transfer payments and grants coming from the State budget and the absence of fiscal autonomy has extremely limited their acting capacity. The situation is worsened by the severe restrictions and pressure imposed by the ISP to borrowing and to the level of interest paid each year.

In literature this condition is identified in by the formula "capital rationing". This is the classical state of rationed, rather than unlimited capital, of public administrations in systems of autonomous or semi-autonomous finance, where the current part of the budget is heavily conditioned by own resources and only in a marginal way by public transfers. The capital rationing emphasizes the inevitable necessity of operating in a more rational way, in the attempt to achieve the best results with the limited available financial resources.

To face this critical situation, the financial function traditionally carried out by LAs requires to be considered no longer as the traditional *fund raising* only, but also as the more innovative *fund management*, based on an accurate strategic <sup>17</sup> composition of different financing sources and on liability management. The rationing of financial resources assumes an exceptional relevance with reference to the investment expense. By definition, investment decision implies the use of enormous amount of resources at present in order to obtain future advantages.

IMs seem to be obliged toward two directions:

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<sup>&</sup>lt;sup>15</sup> The ISP is established by the Art. 28, comma II of the Law December 23<sup>th</sup> 1998, No. 448 entitled "*Financial Measures for Stability and Development*" (the Finance Act for the year 1999).

<sup>&</sup>lt;sup>16</sup> Nevertheless the system defined by the Finance Act for the 2007 (the Law December 27<sup>th</sup> 2006, No. 296) has signed a change of direction, considering the support of municipalities with lower demographic levels in the pursuit of European aims, and considering expenditures in terms of balances rather of spending limits. The practical mechanism is very complex.

<sup>&</sup>lt;sup>17</sup> Briefly, strategy can be defined as the system of choices that determine aims of the organization in the long term. They are not easily reversible, unless at extremely high costs. This approach is due to the condition of scarce resources and growing services demand.

- 1. the recourse to innovative finance" (sophisticated financial strategies, instruments and techniques) that is placed side by side to the traditional one <sup>18</sup>;
- 2. the rise of rationality of management and decisions, to assure more transparency and accuracy on the selection of the financial solution, avoiding or at least reducing dispersion of public financial money.

The various kinds of local financing instruments are listed in the following table:

Table 1 Investment Financing Instruments for Italian LAs

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FINANCING INSTRUMENTS			
TRADITIONAL FINANCE	INNOVATIVE FINANCE		
OWN FUNDS	PROPER INNOVATIVE FINANCE		
- current incomes destined to investment by law;	- bond issue;		
- budget surplus, constituted by surplus of current incomes on the current expenses plus the quota for loan amortization;	- project financing; - opening credit;		
<ul> <li>incomes coming from alienation of patrimonial assets and laws, drawing of credits, incomes from concessions and relative sanctions;</li> </ul>	- leasing;		
REVENUES FROM TRANSFERS	DEBT MANAGEMENT INSTRUMENTS		
- from the national budget;	- operations of derived finance: swap of interest rates, options;		
- from the regional budget;	- re-negotiation of previous loan conditions with CDP;		
- from other public and private organization, especially EU;	- securitization;		
LOANS contracted with the			
- CDP;			
- Istituto per il Credito Sportivo;			
- banking system;			

The new system clearly requires a new approach by local administrators based on high competence and a renovated financial sensitivity, to identify "opportunities".

This paper seeks to discover how LAs are coping with this severe condition especially referring to the concrete use of innovative finance, and to understand the local financial decision-making for the most suitable financing choices. It also attempts to identify the elements, considered of fundamental relevance for LAs in making the decision regarding the most suitable financing choices.

# 3. The Methodology

The Analytic Approach

As briefly described above, the financial decision – making process in IMs appears to be an extremely complex matter, affected by a high number of factors. Some of them are

<sup>&</sup>lt;sup>18</sup> With regard to the first direction, in order to respect and safeguard the European principles of free competition, the CDP has been deprived from the monopolistic privileges that it has historically enjoyed, distorting the correct functioning of the market (Legislative Decree July 30<sup>th</sup> 1999, No. 284, Art. 2 comma III).

directly measurable, but some are not easily perceptible. Consequently, also the approach to the study of public administration issues has changed, as well as the study and the application of many theories and practices have advanced the level of analysis. A valid kind of approach is the analytic one, based on the rational evaluation, case by case, of the situations over which it is proposed to formulate a judgement, respecting some defined parameters. It adopts formal, rigorous, and repeatable structure of reasoning, and regards limited issues<sup>19</sup>.

The Analytic Network Process (ANP)

With this perspective, an interesting tool among the analytic approaches is the ANP, a decisional support methodology developed by T.L. Saaty at the end of the 1960s<sup>20</sup>. It belong to the wider family of the Multiple Criteria Analysis, able to consider factors of different natures (quantitative and qualitative nature or rather tangible and intangible variables). The method allows inclusion of all the relevant criteria, tangible like intangible, objective as well as subjective, that appears to play an important role in local financial decision – making.

The ANP is largely applied in many countries, both in private and public sectors, to cope with situations characterized by high level of uncertainty<sup>21</sup>. Generally, the approach of the mainstream literature about the themes of this research has focused the attention on a deep and detailed framework of the innovative finance that represents the new approach to the local finance. At the same time, studies and researches have been centred on an exhaustive analysis of each innovative financing instrument. In addition they have deepened the implications associated with each different instrument, also highlighting the impact on the budget of these kinds of financial operations<sup>22</sup>.

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<sup>&</sup>lt;sup>19</sup> Saaty, T. L., (2006). Fundamentals of Decision Making and Priority Theory with the Analytic Hierarchy Process, Vol. VI of the AHP Series, Pittsburgh: RWS Publications, pp. X-XI, explains "there are two kinds of decision: intuitive and analytical. Intuitive decisions are not supported by data and documentation and may appear arbitrary. [...] Complex decision making needs organized thinking to structure a problem. This structure can be provide by a hierarchy or a network. It also needs numbers and a modicum of mathematics to formalize judgements and make tradeoffs. Analytical decision making, when used collectively in a corporation, leads to share values".

<sup>&</sup>lt;sup>20</sup> Saaty, T. L., (1980). *The Analytic Hierarchy Process: Planning, Priority Setting, Resource Allocation.*, New York: McGraw-Hill, pp. 841-842.

<sup>&</sup>lt;sup>21</sup> A wide review of the methodology applications can be found in Saaty's publications. In addition, a good synthesis is provided by many authors, such as Omkarprasad, S. V., Kumar, S., (2006). "Analytic Hierarchy Process: An Overview of Applications" in *European Journal of Operational Research*, Vol. 169, No. 1, pp. 1-29; Vargas, L., G., (1990). "An Overview of the Analytic Hierarchy Process and its Applications" in *European Journal of Operational Research*, Vol. 48, No. 1, pp. 2-8; Zahedi, F. (1986), "The Analytic Hierarchy Process a Survey of the Method and its Applications" in *Interfaces*, Vol. 16, pp. 96-108; Barbarosoglu, G., Yazgas, T. (1997), "Application of the Analytic Hierarchy Process to the Supplier Selection Problem" in *Production and Inventory Management Journal*, Vol. 38, No. 1, pp. 14-21; Golden B.L., Wasil E.A., Levy D.E. (1989). "Application of the Analytic Hierarchy Process: a Categorized, Annotated Bibliography", in Golden B.L., Wasil E.A., Harker, R., (edited by) *The Analytic Hierarchy Process – Applications and Studies*. Berlin: Springer-Verlag.

<sup>&</sup>lt;sup>22</sup> Boccia, F., (2002a). Economia e finanza delle amministrazioni pubbliche. Milano: Guerini e Associati; Boccia, F., Nigro, M., (2000). La finanza innovativa. Boc, Bop, Bor, Swap e mutui: costi e opportunità per non sbagliare investimento. Milano: Il Sole 24 Ore; Falini, A., (2000). La strategia economico-finanziaria degli enti locali: prestiti obbligazionari e finanza di progetto. Milano: Guerini; Meola, A., Antonelli, R., (2004). Strategia finanziaria e finanza innovativa nell'ente locale. Rimini: Maggioli; Pignatti, O. (2001). Le politiche di gestione della liquidità e i nuovi strumenti finanziari degli Enti locali. Rimini: Maggioli; Salvemini, M.T., (2002). Il credito agli enti locali in Italia e in Europa. Roma: Bancaria; Boccia, F., (2002b). Italian Local Governments: The Growing Space for Economic-Financial Strategy, Luic Papers, Serie Economia e Istituzioni, No. 5.

However, considering that the new financing instruments have created the problem of finding the appropriate choice among them and establishing the convenience of one form compared to the others in an absolute perspective, this research has attempted to apply the ANP to the local financial decision – making suggests the use of the ANP.

Literature Review about Previous Applications Concerning Public Investments

Some applications of the Analytic Hierarchy Process (AHP), the simplest formulation of the ANP, have been made to improve the efficiency of the allocation of resources among a list of investments. In this direction, there are the work of Barbarosoglu and Pinhas (1995)<sup>23</sup>, that apply AHP in condition of capital rationing in the public sector, and particularly, the study of Chan (2004)<sup>24</sup>, regarding Canadian municipalities, from which the idea of applying the ANP has been drawn.

In Italy, the AHP has been mainly applied in engineering, especially concerning transport projects. Moreover, the AHP has been used as an instrument to obtain a ranking of the projects to be financed, following the suggestion of the Public Investment Evaluation Unit (Autorità per la vigilanza sui lavori pubblici)<sup>25</sup>. Rostirolla's researches (1988, 1992, 1998)<sup>26</sup>, apply the AHP to a project of improvement regarding the highway in Italy (called A3) between Naples and Salerno, and an experimental application of the Emilia Romagna region, concerning financing viability projects<sup>27</sup>. While to our knowledge, no applications have been found in the topic of this research. Therefore, this study may be considered the first attempt conducted in Italy.

### The Model

As highlighted by the major literature about local finance (Meneguzzo, 2003; Boccia, 2002a, 2002b; Pignatti, 2001; Nigro, 2001)<sup>28</sup>, the decision between traditional finance and innovative finance is made respecting some constraints, and considering series of criteria of various natures, so synthesized:

<sup>&</sup>lt;sup>23</sup> Barbarosoglu, G., Pinhas D. (1995). "Capital Rationing in the Public Sector using the Analytic Hierarchy Process" in *The Engineering Economist*, Summer.

<sup>&</sup>lt;sup>24</sup> Chan, Y., L., (2004). "Use of Capital Budgeting Techniques and an Analytic Hierarchy Approach to Capital Investment Decisions in Canadian Municipal Governments" in *Public Budgeting and Finance*, Vol. 24, No. 2, pp. 40-58.

<sup>&</sup>lt;sup>25</sup> Since July 1<sup>st</sup> 2006, after the Legislative Decree April 12<sup>nd</sup> 2006, No. 163, the unit is named *Autorità indipendente per la vigilanza sui contratti pubblici di lavori, servizi e forniture*. The Public Investment Evaluation Unit suggests the employment of AHP in the Determination No. 16/2002.

<sup>&</sup>lt;sup>26</sup> Rostirolla, P., (1988). Scelte pubbliche. Approcci interattivi multi-criterio di aiuto alla decisione. Napoli: Liguori; Rostirolla, P., (1992). Ottimo economico: processi di valutazione e di decisione. Napoli: Liguori; Rostirolla, P., (1998). La fattibilità economico-finanziaria. Napoli: Liguori.

<sup>&</sup>lt;sup>27</sup> Regione Emilia Romagna – Servizio Viabilità (2004). *Progettazione e sperimentazione di un modello di selezione dei progetti a supporto del programma triennale di intervento sulla rete viaria di interesse regionale della Regione Emilia – Romagna*, Bologna: Mimeo.

<sup>&</sup>lt;sup>28</sup>Boccia, F., (2002a). Economia e finanza delle amministrazioni pubbliche. Milano: Guerini e Associati; Boccia, F., (2002b). Italian Local Governments: The Growing Space for Economic-Financial Strategy, Luic Papers, Serie Economia e Istituzioni, No. 5; Meneguzzo, M., (2003). Manuale di finanza innovativa per le amministrazioni pubbliche. Roma: Rubettino; Nigro, M. (2001). Le Fonti di finanziamento degli Enti Locali italiani, Liuc Papers, Serie Economia e Istituzioni, No. 97, December; Pignatti, O., (2001). Le politiche di gestione della liquidità e i nuovi strumenti finanziari degli enti locali. Rimini: Maggioli.

Table 2 The elements of the model

CLUSTERS	NODES
CONSTRAINTS	
Legislative	Destination, Definition, Objective, Quantitative
Budgetary	Destination, Definition, Objective, Quantitative
CRITERIA	
Financial Factors	Risk, Level of interest rates, Internal Rate of Return (IRR), Net Present Value (NPV)
Economic Factors	Economic cost, Opportunity cost
Political Factors	Public perception, Re-election, Satisfaction of election promises, Power of the opposition party
Technical Factors	Time necessary, Procedure complexity, Competences of the public personnel
Patrimonial Factors	Estate value of the administration and the specific Analysis of its components

Elements are more widely explained in the following box:

#### Box No. 1 The elements of the model

The Constraints: divided into two categories, under the items of Legislative Constraints and Budgetary Constraints.

The <u>Legislative</u> one is referred to the restrictions established by the national legal framework that municipalities are obliged to respect:

- a *destination restriction*: imposed by the Art. 5 of the Constitutional Law October 18<sup>th</sup> 2001, No. 3, which states that municipalities, provinces and regions can recur to debt only to finance investment expenses;
- a *definition restriction:* established by the Finance Act for the 2004 (the Law December 24<sup>th</sup> 2003, No. 350), that defines the borrowing mechanisms;
- an *objective restriction:* referred to the conditions to recur to borrowing (Art. 203 of the Legislative Decree No. 267/2000): LAs can contract debt if the financial statements of the two previous financial years must have been approved, and if the budget must indicate what kind of expenses will be financed through the new funding;
- a *quantitative restriction:* represented by the borrowing availability: municipalities can contract new loans only under strict quantitative limits indicated by the Art. 204 of the Legislative Decree No. 267/2000.

The <u>Budgetary Constraints</u> are referred to relevant parameters established by law, such as the deficit condition to avoid destabilizing situations, budget equilibrium, and ISP restrictions to control the level of debt and financial flows.

**The Criteria:** these factors should be the basis of reference above which local administrators can make their choice, after having respected the legal framework (*Constraints*). The decision is made according to 5 kinds of *Criteria* that have been named as: *Financial, Economic, Political, Technical, and Patrimonial factors*.

Each one of the five *Criteria* listed above has more than a single dimension. In fact, each single dimension is represented by a number of *Sub-criteria*. As for the *Financial factors*, it is the primary element in the private as well as the public sector for every kind of expenditure. Overall, the financial profile considers the operation in the perspective of the contribution that it is able to give to the formation of the need of capital requirements and

#### Box No. 1 The elements of the model-continued

to their financing, as well as the relation between income and expense cash-flows, in order to direct the managing toward a condition of cash-flow equilibrium. Firstly, in the category of *Financial factors* have been included the effect of *Risk* and the *Level of interest rates*<sup>29</sup>.

Traditionally, the use of financial analysis to decide about an investment project is not very common in the Italian public sector. Rather, decisions are made simply following the prescriptions imposed by law. Instead, the business approach requires a specific attention to financial factors.

In the attempt to verify whether IMs are changing their approach to financing investment, beginning to use business techniques that can help their choices to be more rational, therefore, also the capital budgeting techniques (Brealey, Myers, 1999; Parmentola, 2004)<sup>30</sup>, used in the private investment decisions, have been considered. So, some financial indicators have been included, such as primarily the *Internal Rate of Return (IRR)* and the *Net Present Value (NPV)*<sup>31</sup>, used to check the economic convenience, and the financial feasibility.

The second criterion is represented by the *Economic factors*<sup>32</sup>. According to the economic perspective, an operation is connected with its economic result, based on a correlation between costs and incomes associated with the investment projects, to reach a condition of economic equilibrium. The criterion has been decomposed into two sub-criteria referred to the direct cost associated with each financing possibility (*Economic cost*) and the corresponding *Opportunity cost*, intended as any possible alternative use of money.

The third criterion has been named *Political factors*<sup>33</sup>, a crucial variable that affects the municipal decision-making. Generally, political factors recognized to be characterized by high intangibility, such as the assumption that politicians are involved with the need to get re-elected, and keep their job. For this reason, they are deep interested in the public perception of their action: a positive attitude of the community toward their mandate, increases their possibility to be re-elected. To satisfy this need, generally, politicians do not act objectively, but, like each person, pursue their own self-interest in retaining power be getting re-elected.

The category has been articulated with reference to four *Sub-criteria*, named: *Public perception*, that means the effect that municipal decisions can produce on their community; the *Re-election*, linked to the primary objective of the political class (at the national as well as at the local level) such as to be re-elected; the *Satisfaction of election promises*; and the *Power of the opposition party*.

<sup>&</sup>lt;sup>29</sup> Boeri, T., Cohen, R., (1998). *Analisi dei progetti di investimento. Teoria e applicazioni per il project financing*. Milano: Egea; Parmentola, N., (2004). *Investimenti pubblici e processo decisionale*. Roma: Centro di Formazione Studi Formez; Brealey, R. A., Myers, S. C., Sandri, S., (2003). *Capital Budgeting*. Milano: McGraw-Hill; Argaawal, R., (2000). *Capital Budgeting Under Uncertainty*. London: Prentice Hall.

<sup>&</sup>lt;sup>30</sup> Brealey, R. A., Myers, S. C., (1999). *Principle of Corporate Finance*. New York: McGraw-Hill; Parmentola, N., (2004). *Investimenti pubblici e processo decisionale*. Roma: Centro di Formazione Studi Formez.

<sup>&</sup>lt;sup>31</sup> A part from the two indexes considered for the model, there are other typologies of indexes included into the capital budgeting techniques, such as the profitability index, the accounting rate of return, the payback period, and the breakeven time. Among all, only the two indicators quoted in the text have been chosen because, according to the quoted literature, those are the most common. Particularly, Brealey, R. A., Myers, S. C., (1999). *Principle of Corporate Finance*. New York: McGraw-Hill supplies a clear explanation of these indicators. And, also read Bierman, H., Smidt, S., (1990). *The Capital Budgeting Decision: Economic Analysis of Investment Projects*, 7<sup>th</sup> edition. New York: Macmillan Publishing Company.

<sup>&</sup>lt;sup>32</sup> Nichols, A., (1964). "The Opportunity Costs of Public Investment: Comment", in *The Quarterly Journal of Economics*, Vol. 78, No. 3, August, pp. 499-505; Schwartz, E., (1970). "The Cost of Capital and Investment Criteria in the Public Sector" in *The Journal of Finance*, Vol. 25, No. 1, March, pp. 135-142.

<sup>&</sup>lt;sup>33</sup> Rostirolla, P., (1988). Scelte pubbliche. Approcci interattivi multi-criterio di aiuto alla decisione. Napoli: Liguori; Rostirolla, P., (1992). Ottimo economico: processi di valutazione e di decisione. Napoli: Liguori. In addition, also refer to Hirschman, A. O., (1970). Exit, Voice, and Loyalty. Responses to Decline in Firms, Organizations. And States. Cambridge: Harvard University Press; Wildawsky, A., (1984). The Politics of Budgetary Process. Boston: Little Brown.

#### Box No. 1 The elements of the model-continued

The forth criterion is named *Technical factors*. It refers to the attitude of public administrators toward innovation, especially in the financial area<sup>34</sup>. Specifically, this research considers the time required by each administrative procedure (*Time necessary*), the Complexity of the administrative procedure (*Procedure complexity*), and the *Competences of the public personnel* as important elements in choosing traditional *versus* innovative financing solutions. The building of the category *Technical factors* has been based on the idea that procedures connected with the *Innovative finance* are supposed to be more complicated if compared with the ones required by the *Traditional Finance*, at least because they represent something new. Consequently they require a major effort by the public administrators.

Finally, the last criterion has been called *Patrimonial factors* (Bellesia, 2001, 2002)<sup>35</sup>. It includes this criterion because an overall evaluation of the real estate property of the municipality gives a global picture of the financial solidity of the entity. This factor is composed by two sub-components: the *Estate value* of the administration and the specific *Analysis of its components*.

Finally, the model includes two kinds of financing **Alternatives**, named *Traditional Finance* and *Innovative Finance*<sup>36</sup>

A graphical summary of the ANP model, so formed, is showed below:

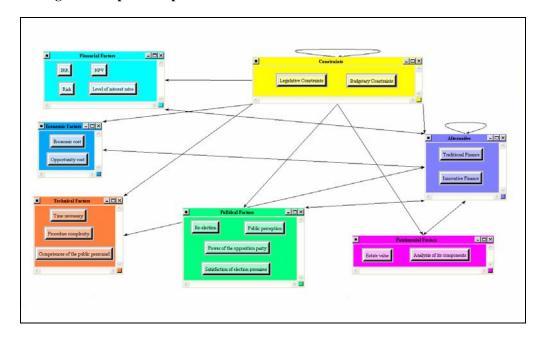


Figure 1 Graphical Representation of the ANP Model

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<sup>&</sup>lt;sup>34</sup> Meneguzzo, M., (2003). *Manuale di finanza innovative per le amministrazioni pubbliche*. Roma: Rubettino. See also Pignatti, O., (2001). *Le politiche di gestione della liquidità e i nuovi strumenti finanziari degli enti locali*. Rimini: Maggioli; Bellesia, M. (2002). *Analisi di bilancio. Dai dati contabili alle valutazioni di efficacia e di efficienza*. Milano: Ipsoa.

<sup>&</sup>lt;sup>35</sup> Bellesia, M., (2001). *Manuale di contabilità per gli enti locali*. Bergamo: Collana Editoriale Anci; Bellesia, M. (2002). *Analisi di bilancio*. *Dai dati contabili alle valutazioni di efficacia e di efficienza*. Milano: Ipsoa.

<sup>&</sup>lt;sup>36</sup> In the model, the financing alternatives are considered as control criteria like the constraints. So, pairwise comparisons among the elements of the model are made also with reference to the *Alternatives*. In addition, the clusters of *Constraints* and *Alternatives* present interdependencies within the same level of analysis. Elements within these clusters clearly have interrelated relationships among them. So, while a *simple arc* is used to connect elements, in these cases *looper arcs* are used to show such interdependencies within the same level of analysis.

## The Observation Field and the Method of Detection

The observation field used for this research is composed by a population of municipalities located in the province of Frosinone in the region Lazio, in the central part of Italy, where there are, overally, 91 municipalities. The analysis has been referred to a population of 23 municipalities, selected on the basis of the prescriptions imposed by the European SGP. Through the ISP, at the national level these directions regard the IMs with more than 5.000 inhabitants<sup>37</sup>, a critical quota because is the point of reference for deciding which municipalities are obliged to comply with the EU limits<sup>38</sup>.

The empirical part of the research has been developed conducting surveys and interviews to the population of the selected municipalities, with the financial officer, that is the figure with the maximum level of knowledge about the finance of the municipality, and with the function of supporting the administration in identifying the most appropriate financing solutions (Bisio, Latella, 2001; Fattore, Meneguzzo, 1997; Falini, 2000)<sup>39</sup>.

### The Results

Anyone of the examined municipalities explicitly define a strategic financial analysis <sup>40</sup>. Neither the financial analysis represents the necessary assumption to make budgeting decisions. Rather, during the financial year, giving application to the law, administrations periodically check the trends of some important budgetary indicators. These, where consciously and strategically managed, should give relevant information to the administration. Unfortunately, they are not checked in the aim of follow a strategic, and entrepreneurial approach, but only as a legal obligation.

The survey data show a clear prevalence for the traditional finance that is used by all the organizations. Instead, innovative finance is used to a much less degree. However, if we

<sup>&</sup>lt;sup>37</sup> The overall list of the 91 municipalities located in the area of the province of Frosinone and the relative demographic dimension is available upon request from the author, as well as a copy of the submitted questionnaire (in the original language), and the list of the 23 municipalities and their demographic levels. The correctness of the demographic level lays on the demographic statistics elaborated by the Italian National Institute of Statistics (ISTAT)<sup>37</sup>, updated at January 1<sup>st</sup> 2006.

<sup>&</sup>lt;sup>38</sup> According to the Italian legislation (Art. 156 of the Legislative Decree No. 267/2000, concerning Demographic Classes and Resident Population), municipalities have been divided into three demographical classes, on the basis of the number of inhabitants. The first class is formed by 12 municipalities, with a population between 5.000 and 9.999 inhabitants. The second one is composed of 3 municipalities between 10.000 and 19.999 inhabitants. The third class is made by 8 municipalities between 20.000 and 59.999 inhabitants.

<sup>&</sup>lt;sup>39</sup> Bisio, L., Latella, G., (2001). "I nuovi ruoli organizzativi in material di decisioni di investimento ed assunzione dei relativi mutui" in Pignatti, O., (edited by), *Le politiche di gestione della liquidità e i nuovi strumenti finanziari degli Enti Locali*. Rimini: Maggioli; Fattore, G., Meneguzzo, M., (1997). *Metodi di valutazione dei programmi pubblici*, Milano: Cuem; Falini, A., (2000). *La strategia economico-finanziaria degli enti locali*, Milano: Guerini Associati.

<sup>&</sup>lt;sup>40</sup> The expression strategic analysis means the analysis of the principal economic and financial indexes related to the last budgets, in order to realize the financial solidity of the organization, the real capacity of investment and borrowing, the overall financial, economic and patrimonial managing (Bellesia, M., (2002). *Analisi di bilancio*. *Dai dati contabili alle valutazioni di efficacia e di efficienza*. Milano: Ipsoa). It should be conducted with the aim of having a picture of the situation of the organization, its level of autonomy, its structural rigidity, its borrowing capacity, the dependability of the debtor situation.

look at the same data in a decomposed form, considering data regarding traditional finance and innovative finance singularly, the reality seems to contradict the previous results.

The collected information regarding traditional finance shows that municipalities mainly finance investment expenditures mainly recurring to CDP loans (100% of the selected municipalities), and capital transfer payments (95.5%).

The recourse to the CDP is considered the best way to guarantee the lowest and more convenient interest rates, to reduce the risk connected to the choice of financing instruments, and to ensure a simple and standardized procedure that does not require any particular competence and extra-time. The examined municipalities consider CDP loans, and capital transfers the most convenient, and less complicated way of financing investment decisions. They rely on the competence of the CDP, thereby avoiding any complex in-house evaluation of alternative financing methods.

Also the transfer payments coming from the regional budget are considered an easy way. In fact, they also use incomes from other kind of operations (such as alienation of patrimonial assets and laws, drawing of credits, incomes from concessions and relative sanctions), and Current incomes destined to investment by law. Finally, they recur to banking system in a smaller amount.

With regards to innovative finance, we observe very narrow use of these instruments. The highest numbers can be found in two entries: the Derived finance (especially swaps of interest rates rather than options), and the Renegotiation of conditions of previous loans contracted with the CDP. A tiny amount is found for the entry of municipal bond issues in the municipalities of the municipal bond issues. Regarding this last kind of instrument, it would be important to check if the municipalities that use the bond issue instrument employ it in the proper way, that is finance investment. Often happens that local governments use the bond issue to cover current expenditures. Consequently, it would be interesting to know whether this method has been used for investment financing or instead for financing the deficit. This second solution should be unfortunate for the municipal finances. This reveals high standardization of the procedures, and scarce attitude toward the Innovative finance.

Evaluating made by the organization in choosing the financing instrument, the most part of the organizations (64%) bases its choice on the lowest cost associated with the financing form, while, the 36% of the organizations make a wider evaluation.

This fact has been explained by the awareness of IMs that their financial decision-making is greatly affected by not measurable factors. But, they are not able to measure them. Consequently, eventually the final choice is conditioned by the elements they can refer directly, such as the cost and the level of interest rates. The most considered factors are the level of the interest rates, and the most comprehensive financial convenience (68,2%), the economic convenience (63,6%), and the risk (54,5%). High values are also associated to the time necessary for funding supplying (45,4%), and to the time necessary for the specific administrative procedure (40,9%).

The application of the ANP to the framework described, through pairwise comparisons, has given a system of priorities for the population of municipality<sup>41</sup>. Results of

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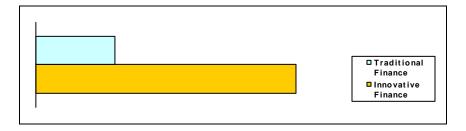
<sup>&</sup>lt;sup>41</sup> Gathered information has been entered into and elaborated by the *SuperDecisions* software that supports the methodology. The *SuperDecisions* Software can be downloaded free from the web site www.creativedecisions.com. or from www.superdecisions.com/~saaty. The ANP application has generated four

the ANP application (*Computation Synthesized*) are synthesized in the following table and figure, in terms of the priorities associated with each Alternative:

**Table 4 Priorities for the Alternatives** 

ALTERNATIVES	NORMALIZED VALUES
Innovative Finance	0.767949
Traditional Finances	0.232051

Figure 2 Priorities for the Alternatives



Results clearly show that within the network form, the better financing solution, (made with respect to the considered constraints and according to the set of criteria and sub-criteria explained above), should be the *Innovative Finance*, rather than the *Traditional Finance*. This result is partially the opposite of the data obtained from interviews and surveys. In fact they show an embryonic employment of *Innovative Finance*. On the contrary the evidence shows the predominance of the *Traditional Finance*.

The ANP associates a higher priority (0.767949) to the *Innovative Finance*. While, at the *Traditional Finance* has been associated a low priority, 0.232051. This means that the application attributes priority of about 76,80% to the *Innovative Finance*, and only a priority of 23,2% to the *Traditional finance*. As a result, the application of the ANP shows that *Innovative Finance* for local investments should be preferred to the traditional one in a condition of capital rationing. Clearly, the application of the model strongly suggests that the condition of capital rationing should push IMs to choose innovative financing instruments. This is in stark contrast with the experience in Italy were the reality shows a persistent use of the traditional financing forms.

### The Implications

These results confirm the perception that was present at the beginning of the study: decision-making in IMs is still far from being operated in a context of efficiency and effectiveness. Despite a long series of new public management reforms introduced over the last decade, decision-making in Italy is still focused on a traditional legal perspective rather than on results and performance-based approach.

matrices (the Unweighted supermatrix, the Weighted supermatrix, the Limit supermatrix, and the Cluster matrix), that represent the system of priorities attributed by the population of municipalities to the problem represented. Matrices are available upon request from the author.

The bureaucratic and formalistic approach is still very strong in the behaviours of the administrative personnel. There is also a complex system of internal competences and roles in defining the financial strategy of the administration: the main role is performed by of the responsible of the financial unit, but there is also the involvement of technical, and political figures. Municipalities do not refer to the consulting service of an external structure for defining the municipal financial strategy. Moreover, the financial personnel periodically attends training courses about innovative finance, but not about financial strategy and capital budgeting techniques to evaluate investment projects and to support the identification of the possible financing solutions. Therefore, IMs do not have the capacity to perform financial analysis. From the interviews conducted in these IMs, it has been found that the only relevant elements that they consider for their investment decisions are the interest rate levels and risks. Moreover, the scarcity of personnel in the IMs is another problem, which complicates the situation. In fact the restrictions imposed through the ISP also limit new hiring. Often, in municipalities there are only two –three persons in the financial area, for this reason generally they prefer the easy way of standardization, and simplification of procedures.

Interviews and surveys show skepticism toward innovative finance. Especially at the local level, the lack of knowledge is a strong disincentive to use the new mechanisms. Public personnel not sufficiently trained for a result-oriented administration are reluctant to be accountable for their management. For the major part, they rather prefer a precise and strict respect of the formal prescriptions of the law because they are not prepared and inclined to use any other system. Innovative finance is very complex and requires by highly qualified personnel. In addition, it implies a heavy load of risk.

In a context of budgetary constraints, IMs overall attribute a great importance to Financial, Political, Economic, Technical, and Patrimonial factors, exactly in this order.

In particular, they base their choices on the level of interest rates, and the risk (*Financial factors*) of the operations. Moreover, choices are strongly conditioned by *Political factors*, linked to *Re-election*, to *Public Perception*, (much less to the *Power of the opposition party*). The high power assigned to the political dimension (due to the high level of priorities associated with this component) within the financial decision-making suggests that IMs are not making their financing choices following strategic and analytical methods, but considering factors characterized by a political nature. As supposed during the formulation of the model, a relevant weight has to be recognized to political factors. Politicians are involved with the need to get re-elected and keep their jobs. To satisfy this need, these political representatives, often, do not act objectively, but like each person, pursue their own self-interest in retaining power by getting re-elected.

The implications of this phenomenon are well explained by Saaty (2007)<sup>42</sup>: "This may be one reason why the scientist whose work requires objectivity does not see politics as a good and useful way of doing things because by its very nature it does not optimize, due to the need of the politician to retain power to continue making decisions is so high on the list. In politics, people must make tradeoffs and accept less. This is a process of sub-optimizing, and it is here to stay".

Sub-optimality in the public sector is a condition accepted and well explained by many theories. It is related to the nature itself of the public action and it is not contested. But, while

<sup>&</sup>lt;sup>42</sup> Saaty, T.L. (2007). "Multi-decisions decision-making: In addition to wheeling and dealing, our national political bodies need a formal approach for prioritization" in *Mathematical and Computer Modelling*, Vol. 46, pp. 1001-1016.

sub-optimality can be accepted, sub-efficiency and sub-effectiveness are not tolerable. Rather, the lack of financial resources requires more rational choice. So decision making in politics is very different from decision making in business.

By itself this behaviour does not have a negative connotation. Or better it is quite common and legitimate, especially at the municipal dimension. The problem resides, instead, in the prevalence of these political factors above any form of rationality in the decision-making process.

The described approach applied to a small sample of Italian local administrations in the centre of Italy has reached the conclusion that, at least in that part of the country, there is a very scarce development of financial, strategic and managerial approach.

#### 6. Conclusion

The analysis of a sample of a number of municipalities in the Centre of Italy has found that IMs finance their investments predominantly by contracting loans with the CDP, and by capital transfers. These Municipalities also use the re-negotiation of the conditions of previous mortgages contracted with the CDP. In order to restructure the debt, they essentially employ operations of interest rate swaps. Choices are basically based on the level of interest rates, and the risk associated to each financing solution.

Generally, there is reluctance toward innovative finance. This is due to the persistence of a legalistic governance approach, and a scarce knowledge of the available innovative instruments which require the application of financial analysis. These results have a series of implications.

IMs are experiencing a time of widespread malaise and uncertainty. This critical condition should require an enhancement of their rationality. To this end, the direct implementation of the ANP within the municipal decision process could be a valid support. Many legislative acts require the introduction and the enforcement of a managerial culture within the public sector. However, the analyses show a great resistance to the adoption of model oriented to results, and to the evaluation of performance. In fact, on one side, public procedures and activities are conducted only giving relevance to the precise and accurate observation of the legal rules. On the other side, public administrators appear to be scarcely motivated. The predominance of the legal perspective in approaching this kind of topic suggests a great attention by the academic institutions, in the education of public managers, and in re-training of public administrators. The solution should be to allow them to really manage instruments, and acquire a strategic entrepreneurial attitude.

This study also confirmed the high role played by intangible variables in decision-making, such as the political factors. Consequently, IMs appear to be far from the concrete application of the dichotomy between policy and administration, that is one of the core components of the NPM paradigm. Political and financial officials should be greatly engaged in expanding the role of ethic principles and behaviors. Ethics applied to policy and public administrations should favor a more transparent decision process, and could create the conditions for correctness and virtuosity in public administration.

The situation clearly shows a need for an appropriate and effective use of analytical methods. To begin with, the situation could be improved by creating specialized entities at a

### Capital Expenditure Financing in Italian Municipalities: An Analytic Approach

provincial or regional level. These entities, composed by professional, autonomous, and independent personnel, should be able to support the IMs in dealing with complex instruments according to the peculiarities of the territory and the communities involved. This role cannot be performed by the CDP since it operates at national level with a uniform approach.

Further, it should be applied as an effective system of performance evaluation in public administration with the participation and control of civil society (also through the use of the social budget). On the side of methodology, this first attempt of the application of the analytic model to a specific local area has been challenging and instructive. The application should be reiterated in other regions of Italy, comparing North and South. In addition, a more sophisticated version of Saaty's model might be applied.

In the current global financial crisis, the financial backwardness and political prudence of Italy (at least part of it) has so far shielded the country against the most severe consequences experienced by other major economies. Although this can be considered an advantage in the short run, this does not provide any reassuring hope for the future unless major efforts are made to support this prudence with clarity, transparency and professionalism.