

## **SUMMARY:**

The work that I am proposing is a deep analysis of the efficiency of the decision making of IMF, and an examination of the voting power distribution amongst the member states in the governance of the Fund , specifically in the Executive Board and within the constituencies that appoint the Executive Directors.

The title of the dissertation is “Voting power in the governance of the IMF: a preference-based approach” and it explains the soul of this analysis. It is intended to depict the decision making situation in the governance of the International Monetary Fund and its functioning either from a theoretical point of view, but also from a mathematical point of view related with an innovative way of thinking of power indices.

First of all this thesis gives a brief explanation regarding the historical path of the Fund, its frame, its tasks and its role in the world economy from his creation to the economic crisis that we are facing; then it explains the on-going reform to the internal structure of the Fund and to the partition of quotas between member states, process of reform that focuses on creating an institution that is more consistent with the real economic situation and that reflects in the organization all the countries in the most conscious way. The IMF is facing an identity crisis and also the crisis in which we are involved can be seen as a further lack of unanimity on the views of the role that the Fund should have on the international stage, and the centre of the ambiguities is related to the governance. Many member states feel that they are experiencing some deficiencies in the decision making of the organization, represented by a shortage of voting power,that would be necessary to change the institution.

As a topic strictly connected with the reform process, there is the position of European Union countries in the framework of a modernization which changes the system of government of the International Monetary Fund. Many researchers think that the position of Europe is the key to any reform. Even if the total share of EU countries do not seem to be greater than the weight of the European Union in the global economy, it is believed that the EU is represented in a way that does not fully meet the needs and developments in the international financial system. Rearranging European position could imply new free seats in the Executive Board of the Fund that might be reserved to constituencies that represent developing countries.

To have a complete and exhaustive idea of governance, that is a concept very different from pure government, and much more broader because it includes other organization and group of interests while government refers to the institutional framework and the hierarchy inside the organization, in

this exposition there is an evaluation of some coalitions that have an important role in influencing decisions and direction of International Monetary Fund. Formally the Executive Board and the Board of Governors are the bodies that control and manage the decision making of the International Monetary Fund, but outside these bodies there are other group of interests formed by countries that could have a very important influence on the results of the policy of the IMF. They can influence constituencies by overlapping membership, changing constituencies.

After this preliminary background to comprehend the composition, the way of acting and the process of reform to democratize and align the governance of the Fund to the values of the real economy, we focus on the main part of the dissertation starting from an enumeration and explanation of traditional power indices. This is a crucial point because the model that we are treating is a prosecution from a new perspective of the classical power indices, so we need to have a clear idea of the previous power indices (normalized Banzhaf, non-normalized Banzhaf, Penrose , power of body to act, power of a member to prevent action, power of member to initiate action ) and of their meaning .

This overview will be a good background to face the central point of this work that is the model. It will focus on the evaluation of two criteria: a preference-based power distribution of the Executive Board and efficiency of their decision making, and changes in power distribution that result from the recent governance reforms. For preference-based power distribution we mean that countries and constituency have a range of preferences to coalesce in this or that group. these preferences are related with the concept of intensity of connections that for a given country  $i$ ) can be interpreted as the likelihood of  $i$  of joining an already formed coalition based on  $i$ ' s pairwise propensities to join each country of the coalition, which are defined in accordance with the preference profile of the country  $i$ . the intensity of connections will be useful in computing an index that represents the power index of a country at the constituency level. The "game" of the Executive Board is a game with two levels, the first is the mentioned constituency level (diverse countries that decide to join different coalitions) and the second is the Executive Board level (different Executive Directors that cast their vote in a certain way). So after the definition of an index that represents the power of a constituency at the level of the Executive Board (probability of being decisive) , we can find for each country of a certain constituency the total power index, that will be the product of the previous indices mentioned before ( this is only a brief analysis, for a deep analysis refer to the work). The preference profile that we used to estimate the intensities of connections are represented by a country  $i$ 's wish to form a coalition with country  $j$  , defined by bilateral trade with the country  $j$  . With this calculation we will be able to give a judgement to the efficiency of the system of

governance of the International Monetary Fund, from the perspective of countries' preferences to coalesce.

The work will not be exhausted with the explanation of the original model because there will be another approach to that model, that consists in a different way of calculating power indices by substituting some terms in the main formulas. In the specified model we are going to evaluate the mean intensities of connections within every coalition, and we are going to build a consistent power index with them. This index will permit us to have another perspective from the original model, a perspective that will not be country-based but constituency-based. With this method we will be firstly able to evaluate the capacity to act as a unique bloc a every constituency, given some mean intensities of connections between countries that form these constituencies, and secondly there is the possibility of making some comparison between the original model and this specified model, comparison that entails a better comprehension of the system and efficiency of governance in the International Monetary Fund.