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# Growing power of developing countries and its influence on decision-making in the World Bank

Bachelor thesis

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Year of defense: 2012

# **Bibliographic Record**

HALAMKA, Radek. *Growing power of developing countries and its influence on decision-making in the World Bank*. Praha, 2012. 53 s. Diplomová práce (Bc.) Univerzita Karlova, Fakulta sociálních věd, Institut politologických studií. Vedoucí diplomové práce Michal Parízek, MSc.

#### Abstract

World Bank had worked under nearly the same structure and the same distribution of voting weights since its establishment. The settings reflecting the post-war situation has been criticized more and more lately as not corresponding with the present circumstances. Ineffectiveness, irrelevance and illegitimacy were enumerated as main deficiencies. Voice Reform, which was conducted in 2008 and 2010, should have brought a solution to the problems by more involvement of developing countries in decision-making in the World Bank. This thesis studies the approved changes in voting weights using power indices and analysis of financial flows. The results of both the approaches show that the revolutionary ethos remained in the Reform text and no large changes would likely happen. The only exception may be an increase of China, however, the United States would maintain its dominant position.

# **Keywords**

World Bank, voting power, voting weights, Voice Reform, power index, Banzhaf, Coleman, financial flows

Number of Characters: 72 329

Abstrakt

Světová Banka fungovala od svého počátku s více méně stejnou strukturou i stejným

rozložením hlasovacích práv mezi svými členy. Nastavení, které odráželo poválečnou

situaci, bylo v poslední době stále více kritizováno jako neodpovídající současným

podmínkám. Jako hlavní nedostatky byly jmenovány neefektivnost, irelevance a

nelegitimita. Voice Reform, která proběhla v letech 2008 a 2010, měla přinést řešení

zmíněných problémů pomocí většího zapojení rozvojových států na rozhodování

Světové Banky. Tato práce zkoumá schválené změny v hlasovacích právech za použití

indexů hlasovacích sil a analýzy finančních toků. Výsledky těchto dvou přístupů

ukazují, že revoluční étos zůstal jen na papíře a k velkým změnám v rozložení

hlasovacích sil ve skutečnosti spíše nedojde. Za jedinou výjimku může být považován

nárůst významu Číny, ale i přesto si Spojené státy udrží své dominantní postavení.

Klíčová slova

World Bank, hlasovací práva, Voice Reform, index hlasovacích sil, Banzhaf, Coleman,

finanční toky

Rozsah práce: 72 329

Declaration of Authorsh	• <u>·</u>
Declaration of Authorsh  The author hereby declares that he	e compiled this thesis independently, using the listed
	or also declares that he has not used this thesis to
Prague, July 31, 2012	Radek Halamka

Acknowledgement
I would like to express my gratitude to my supervisor Michal Parízek, MSc for wise and
useful advices, and to my family for being so supportive all the time.

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#### Introduction

The World Bank Group as one of the oldest multilateral international institutions has gone long way since its establishment and has played an important role in many reconstruction and development efforts. However, many people had seen the institution as old fashioned, unsuitable for the 21<sup>st</sup> century and in particular not reflecting a change in global distribution of power. Critics had above all enumerated that it had become inefficient, irrelevant and illegitimate. For that reason the Voice Reform was proposed in 2008 and approved two years later. The Reform had been expected as a leap forward towards a more equitable institution and as a solution to main problems for which the Bank was criticized. This thesis provides an analysis of the Reform; what had led to it, how it was designed and what consequences could arise from the Reform.

In order to wholly understand the situation in the Group leading towards the Reform it is convenient to start from the very beginning and follow the Group's unique story. For most of its history, the Group had been led by the United States which had exploited its extraordinary post-war position but towards the end of the 20<sup>th</sup> century the situation started to change as former developing countries were becoming more powerful. However, a modus operandi within the Group did not change and the institution still worked according to original settings since only a few amendments have been conducted. As a consequence of being a large international institution many critiques have always been aimed at the Bank and the end of the 20<sup>th</sup> century was not an exception. Nevertheless, the critiques have several times helped the Bank to evolve which proved to happen in case of the Voice Reform as well.

Promoting more equitability by a redistribution of voting weights and other measures, the Reform text was a political response to the loudest critiques dating back to the beginning of the 21<sup>st</sup> century. Since a redistribution of power within the Bank is a zero-sum game the word 'political' is very important here. Already from the establishment there has been a political imperative behind the economic appearance which should make one rather cautious about official sweet talks. To recognize if it was so again in that case or the Reform rhetoric was honest that

time, an empirical analysis of the proposed redistribution is made in this thesis, first, using power indices, and second, studying changes in financial flows. Those tests should reveal whether the Reform would change the affected institutions of the Group in the way and amount it promotes.

Text of the thesis follows the schema indicated here. Chapter 1 deals with the story of the World Bank Group with certain aim at the vital institutions affected by the criticism and Reform the most; Chapter 2 looks at the criticism leading towards the reform efforts; an assessment of the Reform power redistribution using power indices is showed in Chapter 3; and Chapter 4 seeks to evaluate a change in financial flows depending on the redistribution.

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<sup>&</sup>lt;sup>1</sup> All data and results of the analyses can be provided by the author on request.

# 1 Original settings and evolution of the World Bank Group

The thesis aims mainly at the Voice Reform but, in order to tell the whole story, important events that had led towards it or influenced its form should be mentioned. In addition to the fact that the Reform in general attempts to change in favour of higher equitability, it explicitly concerns with several institutions within the World Bank Group - IBRD, IDA and IFC. So I see it relevant to introduce basic rules according to which the institutions work along the historic events.

# 1.1 Founding the Bank

The International Bank for Reconstruction and Development was introduced at the Bretton Woods Conference in 1944 as one of post-war financial institutions that should help to avoid repeating of the unpleasant interwar economic situation. The Bank, though, was of secondary interest at the Conference and was perceived rather as a supporting institution to the International Monetary Fund (IMF).

Despite numerous states participating in the Conference, it was the U.S. above all who had a main say in setting rules and determining a future direction of the Bank. Despite that, the Bank was not created selfishly to serve only U.S. purposes but to serve all member states.<sup>2</sup> As Kapur et al. (1997) showed, common acceptance of U.S. proposals among most of original members came from a White's wish of internationalist spirit of the Bank accepting more or less all countries willing to participate. Whereas the United Kingdom, the second most powerful state involved, did not very support participation of poorer countries. The

resistance to postwar foreign aid." (p.58)

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<sup>&</sup>lt;sup>2</sup> Woods (2005) proposed two views on with what purpose the U.S. established the Bretton Woods institutions. Institutionalists' point of view is that the U.S. wanted to control other states and on the other hand, liberalists think that the U.S. wanted to control its own policy. A version of Kapur et al. (1997) is that one of the purposes was to "minimize expected U.S. congressional

U.K. rather sought to solve its own problems and gain safe financial flows to reconstruct the country while the U.S. side unaffected by the war saw the whole picture. Finally, superiority of the U.S. showed up and the Bank did not become now a rich men club. Thanks to that, only the USSR, due to its ideological disagreement, decided not to accept the original Articles of Agreement although they were present at the Bretton Woods Conference. (World Bank 1) The establishment and settings of the Bretton Woods institutions had also large public support. (Woods, 2005)

It all goes hand in hand with the actual purpose of the Bank. An initial draft borne in mind of Harry Dexter White, the American chief at the Conference, reckoned only on a reconstruction bank. However, a sequence of seemingly inevitable coincidence got development on the agenda shortly. (Kapur et al., 1997) Actually, a classification of developing, or poor, countries was not very established yet and most of the developing world we know now consisted of colonies. Those were treated as "the backyards of member countries, not a subject for diplomatic commentary" (Kapur et al., 1997, p.66) at the Conference. However, Latin American members which had no needs of post-war reconstruction did put great emphasis to promote development lending, and so, perhaps unintentionally, contributed to winning positions for all developing countries.

Despite the internationalist idea, governance of both Bretton Woods institutions was designed to reflect the international status quo of that time and in particular U.S. desires. A distribution of voting weights depended on a member's subscription which should have reflected relative economic power of a given member. However, the very initial distribution, still including USSR, was rather created according to U.S. political will. In memoirs of the Conference could be found that weights to economic indicators should have been made so as to give "the United Kingdom (including its colonies), about half the US quota; Soviet Union an amount just under that of the United Kingdom; and China somewhat less." (Mikesell, 1994 in Woods, 2000)

## 1.2 IBRD and its Articles of Agreement

Arising from the outlined post-war situation, purposes, basic rules and an organizational structure of International Bank for Reconstruction and Development were written down in the Articles of Agreement. A consequence visible at first glance is the fact that only members of IMF can become members of the Bank. Nonetheless, it seems not very substantial while membership is more or less universal nowadays.<sup>3</sup> So let us have a look at more important facts for the matter of this thesis.

As regards a distribution of voting weights (World Bank, 2012a, Article II) each member has voting power which equals two hundred fifty basic votes plus one vote per one share. The basic amount of votes was implemented to ensure more equality for the least contributing member states while shares should reflect country's economic power. An initial capital stock of the Bank was set to ten billion dollars, equally divided into 100,000 shares. The originally proposed distribution of shareholdings can be seen in Table 1. Any increase of the capital stock should have had to be approved by three quarters of total voting power and each member should have had an opportunity (not an obligation) to subscribe a portion of the increase.

An organizational structure (World Bank, 2012a, Article V) consists of a Board of Governors, Executive Directors, a President and other staff. Each member state, i.e. shareholder, is represented by one governor and one alternate who both are delegated for 5 years. A Board of Governors possesses all the power which may be delegated to Executive Directors but there are some powers – e.g. admission of new members and suspension of a member, change in the capital stock, etc. – that cannot. Meetings of a Board of Governors take place at least once a year and a quorum shall always be both a majority of the Governors and not less than two thirds of total voting weights.

Executive Directors should be, according to the Articles of Agreement, "responsible for the conduct of the general operations of the Bank" (World Bank,

<sup>&</sup>lt;sup>3</sup> The fact that each country has to be an IMF member before becoming a member of the Bank is not so important any more given present almost universal membership in IMF. IMF has 187 member countries while there are 193 United Nations member states.

2012a, Article V) and for that reason they work continuously and meet as necessary. A majority of the Directors, or their alternates when absent, possessing not less than a half of total voting weights is needed to take a common decision. Not least, during their two years term it is they who elect a President of the Bank and interpret the Articles of Agreement.

Country	Subscription	Country	Subscription
Australia	200.0	India	400.0
Belgium	225.0	Iran	24.0
Bolivia	7.0	Iraq	6.0
Brazil	105.0	Liberia	0.5
Canada	325.0	Luxembourg	10.0
Chile	35.0	Mexico	65.0
China	600.0	Netherlands	275.0
Colombia	35.0	New Zealand	50.0
Costa Rica	2.0	Nicaragua	0.8
Cuba	35.0	Norway	50.0
Czechoslovakia	125.0	Panama	0.2
Denmark	*	Paraguay	0.8
Dominican Republic	2.0	Peru	17.5
Ecuador	3.2	Philippine Commonwealth	15.0
Egypt	40.0	Poland	125.0
El Salvador	1.0	Union of South Africa	100.0
Ethiopia	3.0	Union of Soviet Socialist Republics	1200.0
France	450.0	United Kingdom	1300.0
Greece	25.0	United States	3175.0
Guatemala	2.0	Uruguay	10.5
Haiti	2.0	Venezuela	10.5
Honduras	1.0	Yugoslavia	40.0
Iceland	celand 1.0 *Determined after Denmark acceptance of the Articles.		
Total			9100.0

**Table 1:** The original members of IBRD and their minimum subscriptions (in millions of dollar) (World Bank, 2012a)

Each Director was entitled to act on behalf of his electors and with their voting power. Initially, there were twelve Executive Directors – five of them representing the largest shareholders and seven of them elected by the rest of governors. Regarding the twenty five Directors in office after the Reform it seems as the most increasing figure within the governance structure of the Bank. It is so

despite a necessity of four fifths of total voting weights in a vote at a Board of Governors. (World Bank, 2012a, Article V)

Although a President of the Bank has a right to vote only if there is an equal division of votes among Executive Directors it is a crucial position. He conducts operations of the Bank and he is responsible for staffing to operational positions. There is also a note that personnel should be recruited on wide geographical basis. A President, Executive Directors and other operational staff should have been impartial and serve entirely the Bank. (World Bank, 2012a, Article V)

Lastly, an introduction of a super majority voting. It was written into text of the Articles of Agreement (World Bank, 2012a, Article VIII) that any amendment should have been accepted by three fifths of members which had four fifths of total voting weights.<sup>4</sup>

# 1.3 First years

The Bank began in accordance with the initial reconstruction purpose and its first loans went in 1947 to war-damaged Europe, especially to its Western members. That, though, ended sooner than planned. One year after the first loans, the Marshall Plan to Western Europe providing more advantageous lending and grants was introduced, which as a result caused that the Bank slowly began to change flow of funds in favour of developing countries. (Kapur et al., 1997) Already in 1948 two loans went to Chile and further development loans were approved next years. (World Bank Group Archives)

Although the Articles denies politically motivated actions and first Presidents defended the Bank as a purely international institution, or rather not serving U.S. purposes, as the Cold War assumed importance the U.S. began to use the development lending as its international policy-making tool. Woods (2005) enumerated the cases of Yugoslavia, Nicaragua or Iran in which case, "as so many others, loans were used to support and win allies in the Cold War against the

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<sup>&</sup>lt;sup>4</sup> There was an amendment in 1989 changing four fifths into eighty five per cent. (World Bank, 2012a)

USSR." (ibid., p.33) So despite the ongoing Cold War or rather due to that, the list of member states broadened.

That reflects a way how the Articles were created. In words of Shirley Boskey, a Bank's director in 1975-1983, talking about initially unexpected importance of development activities: "[T]he actual operations of the Bank differ considerably from those assumed at the Conference. Fortunately, the Articles of Agreement are sufficiently flexible (a more polite word than "vague") to permit the Bank to perform its task despite changed circumstances." (World Bank Group Archives, p.2) Thus, the vagueness has enabled means of achieving the purposes to vary during the existence of the Bank.

# 1.4 IFC and its Articles of Agreement

Already at Bretton Woods Conference, an idea of an affiliate financial institution to the Bank investing in productive private companies and promoting their growth was brought up. (World Bank Group Archives) After a renewal of interest in the idea in 1950s, the International Financial Corporation was established in 1956. Only members of the Bank could become members of the Corporation. (World Bank, 2012b, Article II)

The Corporation got 100 million dollars at its disposal divided into 100,000 shares which could be changed by four fifths of the total voting power. (World Bank, 2012b, Article II) Its organizational structure and most of rules were set very similar to those in the Articles of Agreement of IBRD. Unless necessary, no high officials posts should be duplicated, i.e. the Bank and the Corporation should share most of their Governors and Executive Directors. A President had to be the same for both institutions. (ibid., Article IV)

Requirements to make an amendment to the Corporation's Articles of Agreement were set to a majority of three fifths of the Governors possessing four fifths of the total voting power. (World Bank, 2012b, Article VII) Despite the quite high acceptance threshold there have been a lot of amendments since establishment of the Corporation.

## 1.5 IDA and its Articles of Agreement

Contrarily to the initially planned establishment of IFC, the International Development Association was established in 1960 as a reaction to the early change of post-war situation which implied a necessity to respond to a rising demand for development lending. IDA should have particularly enhanced IBRD development efforts in less developed countries. Further reasoning of founders also assumed that economic development and international trade may help maintaining world peace and prosperity. (World Bank, 1960a)

IDA is a branch of the Group that provides more risky loans to less developed countries at concessional rates which are financed in particular directly from members' subscriptions. (Andersen et al., 2006) That makes IDA and IBRD finances independent on each other so that IBRD AAA bond ratings stay unaffected even when some member state default on an IDA loan.

On the other hand, IDA is quite dependent on donating member states. It was set that initial subscriptions (see Table 2) may have been increased at approximately five years frequency<sup>5</sup> and all additional subscriptions have had to be approved by two thirds of total voting weights. (World Bank, 1960a, Article III) On that account donating member states have had significant influence on IDA through replenishment negotiations, and especially the U.S. used this leverage. (Woods, 2005)

As well as in the previous affiliate, only a member of IBRD can become a member of IDA. Further, IDA, too, copies some rules from the Bank's articles which is seen particularly in an organizational structure. Functions in IBRD and in IDA overlap for those Governors and Executive Directors whose country is a member of both institutions and a President is the same person as in IBRD. (World Bank, 1960a, Article VI)

On the contrary, a distribution of votes does not copy the IBRD's one and a number of votes a member has equals 500 basic votes plus one vote per each \$5,000 of subscriptions. (World Bank, 1960a, Articles VI) The same holds for the quota any amendment to the Articles of Agreement has had to be approved by. In

<sup>&</sup>lt;sup>5</sup> Later on it has been rather at three years frequency.

IDA it is three fifths of members and four fifths of total voting weights. (World Bank, 1960a, Articles IX)

Country	Subscription	Country	Subscription	
Australia	20.18	Pakistan	10.09	
Canada	37.83	Sudan	1.01	
China	30.26	Sweden	10.09	
Germany	52.96	Thailand	3.03	
India	40.35	United Kingdom	131.14	
Italy	18.16	United States	320.29	
Malaya	2.52	Viet-Nam	1.51	
Norway	6.72			
Total			686.14	

**Table 2:** The original members of IDA and their initial subscriptions (in millions of dollars) (World Bank, 1960b)

## 1.6 Other institutions belonging to the World Bank Group

For the sake of completeness of the World Bank Group story, besides the already mentioned institutions which constitute a core there were established two other institutions belonging to the Group. Breaking time continuum of the story I mention them in short. However, since they are rather advisory institutions they have not been the ones over which powerful members would have competed.

In 1966, the International Centre for Settlement of Investment Disputes was established. It should substitute ad hoc "resolving of misunderstandings and settling disputes which may arise during the life of an investment" (World Bank Group Archives, p.116) that had been made by the Bank or its president when asked by governments or investors. Later in 1988, the last institution of the Group, the Multilateral Investment Guarantee Agency was introduced. It should issue guarantees, provide insurance against non-commercial risks and promote further private investments in particular to development countries. (World Bank, 2010a)

If one looks at Articles of Agreement of any institution within the World Bank Group he can see, in accordance with the words of Ms Boskey mentioned above, that they are quite vague. Main purposes of theirs are given but a way and means the institutions use to achieve them can differ to a considerable extent. Let us take a little tour in history of the institutions to prove the claim.

#### 1.7 The World Bank as an established institution

After the first years of competition whether the reconstruction or development purpose prevail, it seemed that it resulted in a tie. Development lending became a basic job content but in case of need the Bank has provided reconstruction loans. The reconstruction has related rather to a post-crisis than post-war situation as it was originally meant.

Easing of lending by the establishment of IDA broadened a scale of World Bank's development projects and the initial reconstruction aim at infrastructure and industry began to transform into funding agriculture, education, or institutional reforms. Later, the World Bank shifted further from growth lending to fighting poverty with "attention to nutrition, literacy, family planning, employment, and income distribution," (Woods, 2005, p.45) supported by detailed analyses. That change has seemed as shaping the development role of the Bank till today. However, as Woods (ibid.) claimed, since the Bank was not created for that purpose its inability to prepare complex reports about its projects has sometimes caused real inefficiency of forthcoming projects.

In 1990s, the World Bank should have turned into a 'knowledge bank' and move its domain from "infrastructure and microeconomic adjustment projects into institution building, market regulation, legal reform, and anti-corruption measures." (Phillips, 2009, p.9) No matter how nice the idea was, a knowledge bank would be hardly sustainable without profits from lending to large-scale projects.

To ensure success of projects, well-functioning macroeconomic policy of a borrower has always been perceived as a basic condition. Therefore, the World Bank got soon into the same field of activity as IMF. Although the unwanted competition was solved by an agreement under which the World Bank should have focused more on its projects and their evaluation and leave IMF to deal with macroeconomic issues. (Woods, 2005)

Already the Latin American debt crisis of late 1970s and early 1980s proved that the institutions are able to cooperate, not only to compete. Under U.S. direction, since it was international commercial banks in the U.S. which were the most affected by the crisis, IMF took steps towards stabilizing economies of affected states and the World Bank lent money helping them to grow again. A provision of both types of help was very strongly based on the principle of conditionality. (Woods, 2005)

To further ease getting over the debt crisis and its consequences, a technique of debt relief which would have decreased interest rates of a given country was proposed by Japan and France. The U.S. did not want to agree with an initial proposal, though, and its implementation went on slowly. (Woods, 2005) The process which ended by approval in 1989<sup>7</sup> shows that the U.S. was still by far the most powerful global player which initiated action, as in case of the debt crisis, and without which no proposal was accepted.

Both the Bank and IMF emerged from the Latin American debt crisis as institutions with good reputation. Imperfect dealing with the crises in Mexico and in Asia and unsuccessful activity in former Soviet Union and in Africa caused a slump of the reputation as they could neither prevent the crises of 1990s nor start desirable reforms. The problem was that the institutions prescribed very similar treatments in 1990s as during the Latin American crisis but they did not work this time. What is more Mexico was meeting requirements of the institutions when it fell into a debt crisis. (Woods, 2005)

The Russian financial crisis of late 1990s revealed another shortcoming of a purely economically oriented approach used by the World Bank. Political, structural and institutional factors were not being taken into consideration which largely affected efficiency of economic measures. Also in Africa where there were

<sup>&</sup>lt;sup>6</sup> A definition of conditionality provided by the Bank is as follows: "The policy specifies that the Bank makes its resources available if the borrower (a) maintains an adequate macroeconomic framework, (b) implements its overall program in a manner satisfactory to the Bank, and (c) complies with the policy and institutional actions that are deemed critical for the implementation and expected results of the supported program." (World Bank, 2005)

<sup>&</sup>lt;sup>7</sup> The final version allowed "some degree of market-based write down of debt whereby a few debtors undertook to replace part of their debt with bond swaps, which would reduce their overall liability." (Woods, 2005, p.52)

not such ideological or political pressures, "[t]oo often specific policy advice has been fashioned according to easy blueprints rather than hard research". (Woods, 2005, p.178)

# 1.8 21st century

After the crises of 1990s which affected above all developing countries, it was developed western countries which seemed more hit by negative events of 2000s. Starting by terrorist attacks; following by long lasting, costly and unpopular wars led by the U.S. and its allies; and ending by a financial and economic crisis from which developed countries suffered more than the rest.<sup>8</sup>

After enumerating the events it is not surprising that many people talk about a decline of the West and especially the U.S., the reality may be less dramatic than it would seem. While the U.S. share in the world GDP was ca. 27.7% in 1989, it was still ca. 23.0% in 2010.9 (World Bank 2) It is necessary to add that U.S. debt has substantially increased since 1989, though. On the other side, there are some issues in which the U.S. still defeats all the others. In his essay, Joseph Nye (2010) claims that U.S. soft power is still eminent – education and research spending is far the highest in the U.S, the country is attractive for perspective people and the political system is compatible with other states more than system of its expected largest competitor in the future, China.

Yet the fact that the U.S. lose its super-dominant position which it could experience during most of the 20<sup>th</sup> century is undeniable. However, it is rather caused by developing countries increasing their power and converging to economic performance of developed countries.

#### 2 Criticism and reforms

All the operational deficiencies, unsolved issues and other events mentioned in the previous Chapter have accumulated in criticism preceding the

<sup>9</sup> The Chinese share in the world GDP was ca. 9.4% in 2010. (World Bank 2)

<sup>&</sup>lt;sup>8</sup> And which was also caused by banks in the developed world.

Voice Reform. From the beginning of the 21<sup>st</sup> century, critics have agreed that the main problems can be summed up as ineffectiveness, irrelevance, and illegitimacy. Since those particular problems were literally mentioned in text of the Voice Reform let us have a look at them in more detail.

By the way, almost whole history of the World Bank Group is based on a cycle of criticism and reforms – criticism leads to a reform which does not fully satisfies critics which in the end leads to other criticism, and so on. Since reform rhetoric is usually way more optimistic than actual consequences of a reform and the thesis analyses the text not the actual consequences of the Voice Reform, I rather use a conditional form of verbs, where a result is not too obvious yet, to reflect that.

#### 2.1 Ineffectiveness

Arguments about efficiency go up to remote history and it has been the area where most reforms have taken place. First reforms date back to 1950s and they were a result of self-reflection. On a larger scale criticism started after the Latin American debt crisis. That time it appeared due to the fact that efficiency of projects was not as great as to overweight an excessive intrusion of the Bank into national policies. (Phillips, 2009) Nevertheless, the problem of ineffectiveness has come back again and again.

Basis of the ineffectiveness problem might lie primarily in the fact that the Bank has applied general measures to different and often very specific situations. It may be very difficult to adjust measures so that they respond specific conditions of borrowing states but the problem rather is that there have been insufficient incentives for Bank's staff to prepare such projects. They have rather stuck to time-proven blueprints. (Woods, 2006) As a solution to the problem has often been suggested decentralization of World Bank's activities and more involvement of developing countries into processes in the World Bank. So far an involvement has consisted rather of explaining than actual involvement of borrowers into the process of project creation. (Woods, 2000)

Deeper cooperation between the World Bank and borrowers could increase effectiveness because "advice is more likely to be accepted if it comes from an institution that is seen as representative of the interests of the borrowing countries." (Ahmed, 2006, p.2) It has been proven that a member's feeling that he owns a project improves performance of the project. (Woods, 2000) One should also bear in mind that the World Bank is still just an advisor and only governments themselves can successfully introduce proposed reforms. So the more appropriate projects would be the higher probability of an intentional impact.

In response to the criticism about inefficiency and political pressure, the Bank has undergone many changes – reorganizations or reductions. As an example, the Strategic Compact of president Wolfensohn was aimed at "a) ineffective business process, b) inadequate human resources, and c) unsatisfactory product type and quality." (Phillips, 2009, p.40) But instead of smoothing the bureaucratic process and increasing the efficiency of organizational structure, the very opposite was described in official reviews and in employees' statements.

In order to assess and solve inefficiencies several 'quality control' bodies has been established within the organization. Phillips (2009), however, argued that evaluation processes have rather excessively burdened staff and subsequent results have not been accurate either.

#### 2.2 Irrelevance

Attractiveness for both borrowers and lenders is crucial for relevance of the World Bank. In its current stage and under current circumstances, the World Bank could soon fight for borrowers. The World Bank could become irrelevant for them because there are more advantageous and less demanding lending opportunities.

A source of the problem is the conditionality principle insufficiently reflecting priorities and demands of developing countries and inability to meet set up goals, thus, simply the ineffectiveness problem. As a consequence of the unsatisfied demand, other players have come on stage. In particular China but also "the United Arab Emirates, Saudi Arabia, Korea, Venezuela, India, Kuwait and Brazil, among others, have been increasing their aid to poorer countries." (Woods,

2008, p.1) They offer loans without other than a repayment condition in one package with advantageous trade commitments. That is, of course, very attractive for all developing countries.

Moreover, there is a problem of unfulfilled promises. While developed countries were not able to deliver on their promise of increasing aid flows to African countries in 2000s, aid from China was rising permanently in 1998-2008 period. (Woods, 2008)

Nevertheless, also lenders have been involved in the problem. They have co-created irrelevance of the World Bank when they have channelled financial flows to developing world by their national development agencies without using the World Bank structures. (Woods, 2008)

## 2.3 Illegitimacy

The problem of illegitimacy concerns unequal representation of individual member states but also a group of borrowers in comparison with lenders. It all came particularly from an almost invariable distribution of power within the World Bank which had not reflected how the global situation had been changing since the establishment of the Bank. The original two hundred fifty basic votes had not been enough to stand for an equitability principle as they had significantly weakened in time. (Woods, 2000; Leech & Leech, 2004)

A solution to the problem was expected with certain hope as to resolve the previous two problems. Balancing out a distribution of power in the World Bank would mean giving more voice to developing countries which would likely result in moving projects closer to borrowers. Besides the solution to the ineffectiveness, also the irrelevance could be fixed by the redistribution. The more voting power developing countries would have the more lending they would use and the more relevant the Bank would be. (Weaver, 2010)

For solving the illegitimacy problem, a change of both "hardware" and "software" would be needed. <sup>10</sup> Until the Voice Reform, there had been more or

<sup>&</sup>lt;sup>10</sup> Weaver (2010) understood software as a culture and inside atmosphere in an organization while hardware is represented by rules, structures, and policies.

less only attempts to reform hardware – e.g. changes of a governance structure striving to increase effectiveness of the organization – which had not been successful. To enhance an impact, a reform of software would be needed to happen, too. (Weaver, 2010) In case of the World Bank, that would mean involvement of borrowers from top to bottom of the organizational structure, in particular through more staffing by personnel from developing countries.

A change to the software would be easier done together with a change of the hardware. To be more precise, a culture within the World Bank could alter without a change of rules, structures and policies but one would need to hope in enlightened actions of current staff and especially current higher officials. According to unflagging criticism, apparently no such situation had happened so far. Thus, a redistribution of voting weights is relevant here. One reason, besides others, is as follows. A President, formally elected by Executive Directors, takes care about operational and staff issues; and Executive Directors perform most Bank's operations. In order to influence election of both a President and Executive Directors, it is necessary to have sufficient share in total voting weights. So, software could be altered by a redistribution of voting weight and consequent elections of the officials.

Opinions to what extent should voting weights have changed have differed. For illustration, Birdsall (2006) proposed a comeback to initial settings of the World Bank as a 'global credit club' consisting of more or less equal colleagues. She appealed to one of initial conditions borne in mind when constructing the Bank: "On the one hand, members taking greater risk ought to have substantial say in the rules and practices of the club – if only to secure their continued financial commitment. On the other hand, the overwhelming financial capacity of a very few countries to take that risk, if reflected fully in the allocation of votes, would undermine the spirit of a club." (Birdsall, 2006, p.74) That described an ideal situation but it should be expected that any shareholders would not be very keen on losing their positions.

Anyway, a redistribution of power within the World Bank, and also the other institutions in the Group, became the most desired solution to the Bank's

troubles and the new global situation; and a redistribution of voting weights became likely the most feasible realization of the idea.

#### 2.4 Voice Reform

Pressure of the criticism was escalating which in the end led the World Bank Group to introduce the Voice Reform (World Bank, 2010b). The Reform rhetoric promoted its proposals as a great leap towards equality and increased participation of developing and transition countries (DTCs). The big change should proceed in two phases, Phase 1 was agreed in 2008 and Phase 2 in 2010, and main contributions of the Reform resulting from both the phases should be following: "(a) Increasing voting power for DTCs [...] (b) Establishing unique IBRD Shareholding Principles [...] (c) Holding regular IBRD and IFC Shareholding Reviews [...] (d) Enhancing DTC Voice on the World Bank Boards." (World Bank, 2010b, pp.1-2)

Being IBRD both the most important institution of the Group and a primal aim of criticism, most of the Reform text is dedicated to it. Corresponding with the proposed hardware-software solution to the illegitimacy problem, new IBRD Shareholding Principles and one-time Shareholding Realignment and even one new Executive Director for members from Sub-Saharan Africa were introduced.

The new IBRD Shareholding Principles attempts to put both economic performance and a contribution to functioning of the Bank into a distribution of voting weights. There were set three determinants of voting power: Economic Weight, Financial Contributions and Development Contributions. Economic Weight will not be based on an IMF quota any more, it will be computed directly from a GDP blend - "60% measured at market exchange rates and 40% on a purchasing power parity (PPP) basis." (World Bank, 2010b, p.6) Financial Contributions will recognize financial contributions to IDA and Development Contributions will reward clients' engagement in Bank's operations. Development Contributions were meant for DTCs to balance Financial Contributions in which developed countries usually prevail.

The Reform one-time realignment of voting weights was based on the new Principles but many additional implementing rules were introduced. Despite the main purpose was to increase voice of DTCs, great emphasis was also put not to cause a loss of any DTC and to favour them wherever it was possible. Consequent play with percentages present in the Reform text caused that it is rather difficult to assess actual results of the Reform. For that reason, the assessment is made in the following chapter.

Besides IBRD, IFC deserved large part of the Reform text. In fact, IFC is a different type of institution and it should be perceived so. Although an IFC shareholding should have reflected a relative IBRD shareholding a situation at IFC had got even more inequitable than in IBRD. That had happened particularly due to unequal subscriptions of unnallocated shares. However, as mentioned in the Reform, IFC shareholders saw it as a reflection of members' preferences and wanted to keep IFC that flexible. Despite that, there was a realignment in IFC shareholding consisting of increase in basic votes and an open subscription to IFC capital. (World Bank, 2010b)

Further, review periods of both IBRD and IFC shareholdings were set to five years. They should aim at closing a remaining gap between developed countries and DTCs. Nevertheless, regular happening of reviews does not imply further redistributions of voting weights, another change would happen only when decided as necessary. (World Bank, 2010b)

Only a little was dedicated to IDA issues. According to the Reform text, Part II IDA members could increase their share from 40.1% to 48.3%. Both DTCs and developed countries belong among the Part II members, though, so one cannot see at first glance in whose favour a change would be made.

# 3 Assessment of the change using power indices

The Voice Reform was accompanied by strong rhetoric and it is well understandable since it was most likely the largest redistribution in history of the

<sup>&</sup>lt;sup>11</sup> Voting power of DTCs was at 33.4% before the Voice Reform. (World Bank, 2010b)

Group. However, it should not blind us so as not to conduct proper analysis. Any reader of the Reform text can see the changes in shareholdings but no one see at first glance what real impact the Voice Reform will have if fully implemented. For that reason, I use power indices analysis in this Chapter to depict the real change.

#### 3.1 Power indices and their use

Although use of power indices cannot be classified as a mainstream approach in political research they have been employed in many studies concerning organizational bodies using weighted voting systems. Besides the Bretton Woods institutions the weighted system is used e.g. in the Council of the European Union.

A rationale for power indices is that voting weights do not have to reflect real voting powers<sup>12</sup>, and in fact on conceptual level they do not. A simple example is a voting body in which two players have 49 per cent of voting weights each and one player has only 2 per cent. It seems that, according to the voting weights, the first two are much stronger than the third one. However, assuming simple majority voting, the weights lose their meaning because two players are always needed to pass the vote. The voting power of all the players is equal, then. (Leech, 2002a)

First thoughts about that go back to 18<sup>th</sup> century to the U.S. Constitutional Convention when, a Maryland delegate, Luther Martin realized a possible advantageous representation of large states in the House of Representatives. (Felsenthal & Machover, 2005) Nevertheless, proper power indices were not invented until 20<sup>th</sup> century. Main contributors to the approach were the 'forgotten pioneer' L.S. Penrose (1946), Shapley & Shubik (1954) and Banzhaf (1965).

Although three seminal works were written only two main power indices are usually enumerated. That is caused by the fact that Penrose's (1946) original ideas sank into oblivion and were re-invented by Banzhaf without awareness of the previous work. (Felsenthal & Machover, 2005) Therefore, the indices usually used

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<sup>&</sup>lt;sup>12</sup> In order to prevent confusion it is necessary to add that a term voting power used in all the Bank's documents in fact refers to voting weights.

are Banzhaf, or Penrose-Banzhaf, index and Shapley-Shubik index. Both the indices are based on the same idea of a decisive voter which can cause a swing, i.e. which can transform a losing coalition into a winning coalition. The indices have different theoretical underpinnings, though, which make them more appropriate for different use. For the analysis here the Banzhaf index is more appropriate.<sup>13</sup> (Leech, 2002b)

There have also been further developments of the basic indices discussed above. But no breakthrough has happened. Some authors have attempted to connect the two indices together without consideration of their different basis, some of them reinvented the already known. Coleman is one of a few who has helped to push forward study of power indices. Although unaware of works by Penrose and Banzhaf, he used the same theoretical basis as them (Felsenthal & Machover, 2005) and invented new measures useful especially in case of special majority voting (see below).

The mentioned, often called 'classical', power indices describe a situation *a priori* without reflecting any relations between voters; it takes into account neither who would have which amount of voting power nor preferences voters would have. So they do not provide information about an actual distribution of power which truly depends on the preferences, but they can well describe basic settings of a given voting body. Recently there have been invented adjustments, mainly based on empirical data, to the classical indices which attempt to put them more

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<sup>&</sup>lt;sup>13</sup> Felsenthal & Machover (2005) sorted indices according to a different notion of voting power. A notion of I-power is used in Banzhaf index. That means that voting power is perceived "as a voter's potential influence over the outcome of divisions of the decision-making body." On the contrary, a notion of P-power, used in Shapley-Shubik index, takes it as "a voter's expected relative share in a fixed prize available to the winning coalition under a decision rule." (Felsenthal & Machover, 2005, p.491)

Shapley-Shubik index was derived from cooperative game theory and thus it bears its limitations. The index describes a situation when all actors compete for a private good, in this case represented by power to decide, which is then divided only among winners. That was opposed as not corresponding with reality of any political decision-making body and thus, inappropriate in analysing some political voting games which was also proved by empirical findings. (Leech, 2002b) Instead of that, Banzhaf index uses a concept of a public good from which other than winning players can benefit, too. It corresponds to political outcomes more than the private good used in the Shapley-Shubik index. (Felsenthal & Machover, 2005)

into reality. (Gelman et al., 2004) Their use is behind the scope of the thesis, though.

#### 3.2 Banzhaf index

The concept of Banzhaf index encompasses in fact two indices – Absolute and Normalised Banzhaf Index. It is assumed that no order is taken into account when forming a coalition and, as it follows from the *a priori* characteristic, all coalitions are equally likely since no voters' preferences are taken into consideration.

As mentioned above, Banzhaf index is based on the idea of a voter having a decisive vote, or a so called swing, transforming losing coalition into the winning one. More formally written, a voter i taken from a total number of voters n,  $i \in \{1, 2, ..., n\}$ , is decisive when he can make a swing and transform a losing coalition  $T_i$  into a winning coalition  $T_i + \{i\}$ . Given  $w_i$  is a voting weight of the voter i,  $w(T_i)$  voting power of a losing coalition and q is a voting quota, then there is a swing when adding a voting weight  $w_i$  makes a coalition to pass a quota,  $w(T_i) < q \le w(T_i) + w_i$ . Banzhaf index is further computed from a number of swings that a voter i can make,  $\eta_i = \sum_{T_i} 1$ , which is nothing more than a sum of all coalitions  $T_i$  meeting the condition of a swing.

Then, in the Absolute index (1) the sum is divided by a total number of coalitions which include the voter i,  $2^{n-1}$ . Thus, it turns out as a probability that the voter i is decisive when included in a coalition. The Normalized index (2) shows just the absolute voting power relative to others, so the sum  $\eta_i$  is divided by a number of swings for all players,  $\sum_i \eta_i$ . Finally the indices look as follows:

$$\beta_{i}' = \frac{\eta_{i}}{2^{n-1}} = \sum_{T_{i}} \frac{1}{2^{n-1}} \quad (1) \qquad \beta_{i} = \frac{\eta_{i}}{\sum_{i} \eta_{i}} = \frac{\beta_{i}'}{\sum_{i} \beta_{i}'} \quad (2)$$

and as it is evident from the computation the Normalized index adds up to one over all voters,  $\sum_{i} \beta_{i} = 1$ , so its value reflects a voter's share of voting power. (Leech, 2002a)

#### 3.3 Coleman indices

There is a difference between a vote requiring a simple and special majority. While a simple majority vote is almost symmetrical, there is substantially different number of votes needed to win and lose a special majority vote; or in Coleman's words, to initiate and prevent action. Because a special majority having quota of 85% is used in some votes, I introduce Coleman indices which take that fact into consideration more than Banzhaf index does.

Coleman indices are related to Banzhaf index and also their computations are interconnected to a certain extent. Coleman built his set of indices on measuring power of a voting body to act,  $A = \frac{\omega}{2^n}$ , where  $\omega$  represents a number of all winning coalitions and the denominator a number of all possible coalitions. So, it says how many coalitions are actually able to win a vote. (Leech, 2002a)

Then, Coleman developed two other indices measuring power of a member to prevent action and power of a member to initiate action. The former one is measured as a number of negative swings divided by a number of all winning coalitions,  $PPA_i = \frac{\eta_i}{\omega}$ , and the latter one equals a number of positive swings divided by a number of all losing coalitions,  $PIA_i = \frac{\eta_i}{2^n - \omega}$ . (Leech, 2002a; Pajala, 2002)

 $PPA = \frac{\eta_i}{\omega} = \frac{\beta_i'}{2A}$ , and  $PIA_i = \frac{\eta_i}{2^n - \omega} = \frac{\beta_i'}{2(1 - A)}$ . (Felsenthal & Machover, 2005)

<sup>&</sup>lt;sup>14</sup> A positive swing is defined as a swing that turns a losing coalition into the winning one while a negative swing has the opposite effect, it turns a winning coalition into the losing one. (Pajala, 2002) The interconnection with Banzhaf index can be seen when one develop the equations:

Although a computation of the indices may seem easy at first glance, it gets harder with an increasing number of voters. The basic equations above are not suitable for large voting games (more than 30 voters) which require complex algorithms and results they give are made by an approximation. For that reason, I use programs *ipdirect* directly applying the indices for a small number of voters (Executive Board) and *ipmmle* for large voting games (Board of Governors) developed by authors Dennis Leech and Robert Leech.<sup>15</sup>

## 3.4 Setup

For computing the power indices voting weights and a quota is needed. The text of the Voice Reform contains a distribution before the Reform and a desired distribution emerging from the Reform. Instead of number of votes a member has which is usually used as voting weights, only the distributions in percentages are given. On that account, I use the percentages as voting weights here. Although many quotas appear within the institutions of the World Bank Group (see Chapter 1) I discuss only the two extremes, simple majority voting and supermajority voting (85%), in most changing IBRD and IFC. <sup>16</sup> IDA is excluded since for changes in its voting weights were not given exact numbers allowing analysis.

Although the main purpose of the Voice Reform is to create a more equitable distribution of power between DTCs and developed countries there is no exact enumeration of countries belonging into the groups. Only a vague definition of DTCs is given in text of the Reform. The problem is that not even the narrowest possible application of World Bank's definitions (World Bank 3) results in the percentages assigned to the two groups in the Reform text. For that reason, I enumerate countries treated as developed in this thesis in Table 3.<sup>17</sup> Only these

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<sup>&</sup>lt;sup>15</sup> The program and some others are accessible from

http://homepages.warwick.ac.uk/~ecaae/#Progam\_List. For more details on algorithms used see Leech (2002a).

<sup>&</sup>lt;sup>16</sup> It is not a rule and every setting gives unique results but the largest inequality usually appears at simple majority voting and the further from the middle the more equal voting powers result from the indices.

<sup>&</sup>lt;sup>17</sup> The countries treated here as developed countries are all high income countries less the exceptions mentioned at the World Bank website. (World Bank 3)

developed countries counted for 61.78% of voting weights in the Bank before the Reform. But also after the Reform they still bear 57.87% instead of 52.81% acclaimed in the text of the Reform. (World Bank, 2010b)

Japan	Qatar
Republic of Korea	San Marino
Luxembourg	Saudi Arabia
Malta	Spain
Netherlands	St. Kitts And Nevis
New Zealand	Sweden
Norway	Switzerland
Oman	Trinidad and Tobago
Portugal	United Kingdom
	United States
	Luxembourg Malta Netherlands New Zealand Norway Oman

**Table 3:** A list of developed countries

## 3.5 Changes in IBRD

Changes in the Bank as the main institution within the World Bank Group deserved the largest part of the Reform text and consequently it comes under scrutiny here as well. For a high number of Bank's members I describe particularly the most important and salient changes.

# 3.5.1 Voting weights

Let us have a look at the proposed change in voting weights first. As it was proclaimed the largest decreases should affect developed countries while DTCs should experience the largest increases. Well, the situation turned out not to be so straightforward.

The few largest shareholders – the U.S., Japan, Germany, France and United Kingdom – would actually decrease their voting weights by individually very significant amounts relative to others. But since they are just five the total change is a just bit more than 3% (see Table 4), and there are 149 member countries defined as DTCs waiting for increase. Then, it is no surprise that an

average change of a member in absolute terms would be only 0.06%. Moreover, the total gross increase in voting weights of DTCs is 4.95% and only China, Mexico and Turkey would take 2.69%, so all small DTC shareholders would experience just tiny increases. On the other hand, from all the DTCs only 23 should experience a negative change.

Country	Before the Reform	Change	After the Reform
United States	16.36	-0.51	15.85
Japan	7.85	-1.01	6.84
Germany	4.48	-0.48	4.00
France	4.30	-0.55	3.75
United Kingdom	4.30	-0.55	3.75
China	2.78	+1.64	4.42
Mexico	1.18	+0.50	1.68
Republic of Korea	0.99	+0.58	1.57
Turkey	0.53	+0.55	1.08

**Table 4:** The largest changes in IBRD Shareholdings (of more than 0.4; in per cents) (World Bank, 2010b)

The most affected member by a negative change would be Japan (-1.01%) and, on the other side, China would experience the largest positive change (+1.64%) which would also overtake Germany, France and United Kingdom and become the third most powerful member of the Bank. Since the Bank had 186 members it is obvious that not everyone could undergo such increase. An overall change concerning the grouping into DTCs and developed countries brought larger numbers, taking the official numbers the change would be from 57.40% for DTCs to 52.81% after the Reform. But given the discrepancy in definition of DTCs described above, the final amount is rather higher while the change is likely a bit lower, from 61.78% to 57.87% according to the list of developed countries used here.

<sup>&</sup>lt;sup>18</sup> Tuvalu became the 187<sup>th</sup> member after the Voice Reform.

#### 3.5.2 A distribution of voting power among Governors

Although voting weights should have significantly shifted in favour of DTCs, the reality seems different. In accordance with extent of the changes in voting weights, analysis using power indices does not show many substantial individual changes apart from the countries mentioned above as experiencing the largest changes. A number of countries having at least some say in voting did not change either. Before the Reform there were 50 countries which could become decisive voters under simple majority voting in more than 0.5% of all possible coalitions<sup>19</sup>, after the Reform there would be even one country less.

The U.S. stays the leader of the Bank according to its voting weight and even more according to its voting power. As it has been proved previously (e.g. Leech & Leech, 2004) the U.S. had been overrepresented before the Reform and it would not alter. The overall constellation after the Reform seems to be so favourable to the U.S. that its absolute voting power measured by Banzhaf index would even rise despite the relative decrease in shareholdings. That just confirms the fact that voting weights and voting power do not have to go hand in hand. What is more, its absolute voting power had already been far the highest with the U.S. being a decisive voter in more than one third of all possible coalitions.

In contrast to the leader of the Bank, there would be no significant increase in voting power of any African member. Not a single one would improve its position by more than 0.1% and all African members together would gain ca. 0.15% more relative voting power than before the Reform. So a total sum of individual voting powers possessed by African members would be around 7.5%. It would not be better in case of other DTCs either; only the representatives of DTCs undergoing the largest changes in voting weights would attain such amounts of absolute power which would cause increases in relative voting power of about 0.5%. Except for China which would increase its relative power by about 1.5% and come out as a winner. (see Table 5)

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<sup>&</sup>lt;sup>19</sup> That means all countries having the Normalized Banzhaf Index higher than 1%. Normalized Banzhaf index counts only on all coalitions a member is part of; in order to compute with all possible coalitions, Normalized Banzhaf index have to be further divided by two.

At last, a total sum of individual voting powers held by developed countries listed in Table 3 would be 60.98% instead of 64.42% before the Reform. Nevertheless, it is more than the total voting weight of developed countries listed here, and even more than the official numbers say.

	Absolute		Normalised	_
	Banzhaf	_	Banzhaf	_
Country	Index	Change	Index	Change
United States	0.737169	+0.008736	0.226639	-0.001990
Japan	0.221227	-0.022220	0.068015	-0.008080
Germany	0.135433	-0.013090	0.041638	-0.004792
France	0.130024	-0.015220	0.039975	-0.005399
United Kingdom	0.130024	-0.015220	0.039975	-0.005399
China	0.084165	+0.050750	0.025876	+0.014757
India	0.084165	+0.005161	0.025876	+0.001027
Italy	0.084165	-0.003090	0.025876	-0.001459
Canada	0.084165	-0.009520	0.025876	-0.003395
Netherlands	0.066924	-0.007910	0.020575	-0.002802
Brazil	0.062686	+0.006137	0.019272	0.001456
Belgium	0.054511	-0.006240	0.016759	-0.002222
Switzerland	0.050272	-0.005380	0.015456	-0.001936
Australia	0.046033	-0.005140	0.014153	-0.001836
Venezuela, RB	0.038463	-0.004330	0.011825	-0.001544
Mexico	0.035737	+0.015909	0.010987	+0.004567
Republic of Korea	0.029983	+0.018285	0.009218	+0.005319
Turkey	0.016052	+0.017162	0.004935	+0.005068
Greece	0.003634	+0.006517	0.001117	+0.001940
Vietnam	0.002423	+0.003729	0.000745	+0.001108
Singapore	0.001211	+0.007402	0.000372	+0.002222

**Table 5:** Changes in voting power under simple majority voting (of more than than 0.1% in the Normalised Banzhaf index)

Supermajority voting makes effects of the Reform realignment even smaller. It comes from a characteristic of the vote that all powers equalize as a vast majority of members is necessary to pass a bill. Values from the Absolute Banzhaf index approach zero which makes the supermajority voting similar to a unanimity vote in which each member is decisive only in a single case.<sup>20</sup>

In spite of absolute powers approximate zero, relative powers can be still measured. After the Reform, first seven largest shareholders would have very similar relative voting power slightly above 3%. In general, nearly no changes would happen according to the Banzhaf index; the only countries which would raise their power of more than 0.5% are Republic of Korea (+0.59%) and Turkey (+0.7%). A closer look can reveal that the Reform realignment would make initiation a bit harder since a total sum of absolute Banzhaf power would become lower. The Coleman's Power to Initiate Action (PIA) index shows evident constancy and so proves the preceding results.

A more serious problem in case of supermajority voting is blocking a bill to pass. On that account, use of the Coleman index measuring power to prevent action (PPA) seems more appropriate here. The Coleman index shows the veto power of U.S. and also the power of other large shareholders nearly had reached unity (see Table 6). Their number would decrease and only five shareholders would have power to prevent action exceeding 90%, instead of twice the number before.

The decrease would not be very rare; power index analysis shows much more loses, of both DTCs and developed countries, than gains. Only the members with the largest growth in voting weights would increase their power to prevent action; unlike the simple majority voting, it is not China who would earn the most but Republic of Korea (+0.15%) and Mexico (+0.10).

Also aggregate change in power to prevent action confirms that blocking a vote would be more demanding. And what is more, for fifty six African countries it would stay still impossible rather than more demanding. Having all together 8.11% of voting weights after the Reform they would need to find a partner every time they wanted to block a vote anyway.

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 $<sup>^{20}</sup>$  Because of their characteristics, the values from the Absolute Banzhaf index in case of supermajority voting are not included in the text.

Country	Before the Reform	Change	After the Reform	
Japan	0.999930	-0.001490	0.998440	
Germany	0.989151	-0.028800	0.960351	
France	0.986184	-0.037740	0.948444	
United Kingdom	0.986184	-0.037740	0.948444	
China	0.906782	+0.067956	0.974738	
Russian Federation	0.906782	-0.123940	0.782842	
Saudi Arabia	0.906782	-0.123940	0.782842	
India	0.906782	-0.125190	0.781592	
Italy	0.906782	-0.126930	0.779852	
Canada	0.906782	-0.140270	0.766512	
Netherlands	0.782787	-0.091780	0.691007	
Brazil	0.765671	-0.020250	0.745421	
Belgium	0.716634	-0.110650	0.605984	
Spain	0.702976	-0.026920	0.676056	
Switzerland	0.683266	-0.109060	0.574206	
Australia	0.644795	-0.111000	0.533795	
Iran	0.632907	-0.055720	0.577187	
Venezuela, RB	0.564348	-0.105400	0.458948	
Mexico	0.532001	+0.103415	0.635416	
Argentina	0.509522	-0.047010	0.462512	
Republic of Korea	0.458472	+0.147509	0.605981	

**Table 6:** Coleman Power to Prevent Action Index

# 3.5.3 A distribution of voting power among Executive Directors

Importance of an Executive Board was already mentioned above; it is a body formally electing a President but above all conducting Bank's operations. So it is Executive Directors who influence how the Bank acts on everyday basis. A distribution of power is thus at least as important here as it is at the Board of Governors. Although it is said that decisions at the Executive Board are reached by consensus, Woods (2000), among others, strongly opposed that. According to her, all members are very aware of a voting power distribution and they behave so. Further, the Voice Reform introduced another seat for Sub-Saharan Africa (EDS-25) which should have brought more representation to the African states.

However, the addition of one more Executive Director for Sub-Saharan Africa would mean no larger representation for African countries even in case of fulfilment of Reform changes in voting weights. There is a little increase but in general the power gained by EDS-25 (+1.57%) was actually just taken from EDS-14 (-1.54%). Otherwise changes follow the already established pattern (see Table 7); voting power of China would increase the most (+1.59%) while Japan would suffer from the largest decrease (-0.95%).

				Absolute		Normalised	
		Voting		Banzhaf		Banzhaf	
	ED nationality	weights	Change	Index	Change	Index	Change
EDS-01	United States	16.36	-0.51	0.62209	-0.00606	0.20114	-0.00678
EDS-02	Japan	7.85	-1.01	0.23322	-0.02434	0.07541	-0.00951
EDS-03	<b>United Kingdom</b>	4.30	-0.55	0.12723	-0.01337	0.04114	-0.00522
EDS-04	France	4.30	-0.55	0.12723	-0.01337	0.04114	-0.00522
EDS-05	Germany	4.48	-0.48	0.13260	-0.01109	0.04287	-0.00453
EDS-06	Pakistan	3.18	-0.11	0.09388	-0.00080	0.03035	-0.00098
EDS-07	Canada	3.84	-0.26	0.11353	-0.00487	0.03671	-0.00243
EDS-08	Argentina	2.31	+0.01	0.06811	+0.00218	0.02202	+0.00016
EDS-09	Australia	3.44	+0.50	0.10161	+0.01806	0.03285	+0.00491
EDS-10	Austria	4.79	+0.17	0.14183	+0.00915	0.04586	+0.00177
EDS-11	Kuwait	2.90	+0.12	0.08559	+0.00597	0.02767	+0.00122
EDS-12	India	3.39	+0.11	0.10014	+0.00608	0.03238	+0.00113
EDS-13	Sao Time and Principe	2.04	+0.26	0.06002	+0.00966	0.01941	+0.00257
EDS-14	Sudan	3.41	-1.61	0.10073	-0.04628	0.03257	-0.01539
EDS-15	Brazil	3.59	+0.22	0.10609	+0.00961	0.0343	+0.00220
EDS-16	Indonesia	2.54	+0.46	0.07495	+0.01600	0.02423	+0.00447
EDS-17	China	2.78	+1.64	0.08205	+0.05232	0.02653	+0.01586
EDS-18	Spain	4.49	+0.57	0.13291	+0.02115	0.04297	+0.00564
EDS-19	Netherlands	4.51	-0.33	0.13349	-0.00648	0.04316	-0.00309
EDS-20	Sweden	3.33	-0.25	0.09835	-0.00496	0.0318	-0.00234
EDS-21	Italy	3.50	+0.10	0.10335	+0.00593	0.03342	+0.00106
EDS-22	Saudi Arabia	2.78	-0.01	0.08205	+0.00190	0.02653	-0.00004
EDS-23	Russia	2.78	-0.01	0.08205	+0.00190	0.02653	-0.00004
EDS-24	Switzerland	3.04	-0.12	0.08975	-0.00122	0.02902	-0.00109
EDS-25	South Africa	-	+1.64	-	+0.04962	-	+0.01566

Table 7: The Reform change in distribution of voting power among Executive Directors

Election of an Executive Director strongly depends on a distribution of power in his or her constituency. There are eight one-member constituencies  $(EDS-01-05,\ 17,\ 22,\ and\ 23)$  and the rest consists of groups of countries.

Although Executive Directors should be politically neutral professionals, Leech & Leech (2004) argued that they are appointed or elected by members in their constituencies and, thus, they tend to represent them.

What is more, it sometimes happens that they do not represent all members of a constituency but only the country they come from. Then, the country of Director's origin wins voting weights possessed by its colleagues in a given group; and that happens more often to developed countries than DTCs. Before the Reform the Executive Directors from developed countries gained altogether 16.61% voting weights more than was assigned to the countries at Board of Governors, after the Reform even 18.21%. Since particularly DTCs underwent increases in voting weights it paradoxically seems that it was they who donated the shift. That eased decreases of the developed countries in one-member constituencies.

Developed countries had fourteen Executive Directors out of twenty five at the Executive Board in 2011. (World Bank, 2011) They outnumbered DTCs not only in seats but also in voting power. Total voting weight of developed countries at the Executive Board was 71.01% before the Reform and 68.28% after that, total voting power was 72.40% and 69.71% respectively. That is much more than developed countries had on the level of Governors.

The Voice Reform talks about Executive Directors only a little and everything rather revolves around the new Executive Director for Sub-Saharan Africa. Thus, it did not reflect any side effects of the Reform redistribution. In fact, the system of Executive Directors favoured developed countries much more than a Board of Governors and the Voice Reform reaction was hardly sufficient.

# 3.6 Changes in IFC

IFC is rather of secondary importance in a hierarchy of the World Bank Group but since there was the high inequality in representation between DTCs and developed countries it is attractive to examine, at least a bit, changes made by the Voice Reform there.

<sup>&</sup>lt;sup>21</sup> Percentages for DTCs are 14.91% before the Reform and 14.93% afterwards.

The inequality was caused particularly by the U.S. which had almost one quarter of Corporation's shareholdings which is reflected by results from the Banzhaf index. The Absolute Banzhaf Index shows that before the Reform the U.S. could act as a decisive voter in 90.37% of all possible coalition it would participate in; and it had relative power of 45.25%. A redistribution proposed in the Reform would decrease U.S. shareholdings to 20.96% which would also cause a decrease in relative voting power to 36.82%.

As a consequence of the redistribution, absolute powers of all other members would increase. However, not even the redistribution would reduce the dominant position of the U.S. in IFC, and developed countries. No DTC would be among the five members having more than 5% of voting weights and despite four DTCs being among top eleven their shareholdings would not balance out the U.S. stake. In total, developed countries would have 63.84% of voting weights and 70.74% of voting power after the Vote Reform.

There was a large space to make the Corporation more equitable but, as it was mentioned above, shareholders did not see a necessity to significantly realign its distribution. Given the bargaining position of the U.S. the final shape of the Reform for IFC is not very surprising.

# 4 Financial flows

The previous Chapter revealed that the Voice Reform may not reach the desired more equitable distribution of voting power. In this Chapter I attempt to prove, or rather to disprove, the claim by analysing financial flows resulting from IBRD projects. It is likely that countries eligible for IBRD projects having more voting weights would try to push through more financial flows to their own country. So dependence of committed financial resources on voting weights is under study here; or more precisely how the commitments changed depending on the proposed change in voting weights.

# 4.1 Method and settings

A design of the test reflects the fact that the Reform took place in two stages – Phase 1 in 2008 and final Phase 2 in 2010. (World Bank, 2010b) Since some variables are collected on annual basis I decided to restrict available panel data only to three years with one year gap between them in order to avoid data shortcomings in the Reform years.

Regarding the characteristics of available panel data and the purpose of the analysis a method using first differencing seems as the most suitable.<sup>22</sup> In accordance with the previous paragraph it implies that each observed country is represented by two equations describing changes between years 2011 and 2009 and years 2009 and 2007. Standard errors are clustered by country to ensure robustness of results.

There are many members of the Bank that either do not get any finances or do but only on occasional basis. They could cause undesirable bias while emphasis should be put on regular recipients in particular. To avoid the potential bias I restricted the sample to those having at least eight projects during 2006-2011 period and also having project in the years crucial for the analysis 2007, 2009, 2011.

# 4.2 Data and variables

A dependent variable is a logarithm form of an amount of funds that has been committed to each observed country. The World Bank database provides data for IBRD loans, IDA credits and grants. Since there are no explanations given to grant commitments and a distribution of voting power in IDA was not part of the

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<sup>&</sup>lt;sup>22</sup> A basic panel data model  $y_{it} = \beta_0 + x_{it}\beta + a_i + u_{it}$ , where  $x_{it}$  is  $1 \times K$  for t = 1, ..., T time periods and i = 1, ..., n units, allows use of various techniques. However, random effects are unsuitable since it cannot be assumed that  $Cov(x_{itj}, a_i) = 0$ , for all t = 1, ..., T and

j=1,...,n, in this case. Thus, in order to remove a time invariant unobserved effect  $a_i$  either fixed effects or first differencing is used. Since idiosyncratic errors  $u_{it}$  are quite correlated here and only three periods are under analysis, I chose the first differencing method and the final model is as follows:  $\Delta y_i = \Delta x_i \beta + \Delta u_i$ .

Reform, only IBRD commitments are taken as a dependent variable here. The main independent variable under scrutiny is a voting weight in the Bank taken from the Reform text. Since there has been undergone almost no real change in voting weights, proposed post-Reform values are taken for year 2011. If the Reform was meant seriously, it should properly represent power of members and cause no larger bias.

There has not been a similar study of a change in the past but there have been several ones concerning financial flows from the Bank depending particularly on U.S influence over the Bank and interconnection between voting in the United Nations and the Bank. (Andersen et al., 2006; Dreher et al., 2009; Kilby, 2010) So besides the variables of interest I use relevant control variables which have proven to be significant in those mentioned studies. (see Table 8)

Variable (nickname)	Description	Source
IBRD Commitments (librd)  IBRD Voting weights (vw)	A logarithm form of an amount committed to each observed country.  Voting powers mentioned and proposed in the Reform text.	World Bank 2 World Bank (2010)
Common strategic interests (unus, unjap, unchn)	A share of the UN General Assembly votes in accordance with main IBRD shareholders.	Strezhnev & Voeten (2012)
A non-permanent member of UN Security Council (sc)	A dummy variable reflecting a non-permanent membership in UNSC in a given year.	United Nations Security Council
Common commercial interests (trus, trjap, trchn)	A country's share on total trade (import to and export from) of main IBRD shareholders.	International Monetary Fund (2012)
GDP p.c. ( <i>lgdp</i> )	A logarithm form of gross domestic product per capita.	World Bank 2

Table 8: Variables used

A strategic similarity to leading shareholders has been measured by voting at UN General Assembly. Although the authors of previous studies dealing with U.S. influence argued that more precise measure is to include only the votes labelled as important by the U.S (e.g. Kilby, 2010), in this thesis I use a country's proportion of voting in accordance with a given large shareholder to all votes

during a given year. It is done so because not only U.S. influence but also Japanese and Chinese ones are studied here. Further, Andersen et al. (2006) argued for use of a two times lagged UN voting variable which should match "with the story that commitments in year t are decided in year t-1, based on voting performance in year t-2." (ibid. , pp.17-18)

Not only political variables play a role in deciding about commitments also economic determinants likely do. (Andersen et al., 2006) They are represented here by a share of total trade between a recipient and one of the large shareholders and by a logarithm form of GDP per capita. The trade variable should proxy members' economic, or commercial, interests as well as UN voting does for international policy, or strategic, interests. A GDP per capita variable is included to depict a country's economic development and as the only one its estimate should have a clearly negative sign; as a country gets richer, less financial resources are committed to it. A positive relationship between the dependent and other independent variables is expected.

# 4.3 Results

Several models, both without and with control variables, were estimated to obtain relevant results (see Table 9). Although a change of voting weights shows a hint of significance when concerning a bivariate regression (Model 1) it vanishes right after adding a logarithm of GDP per capita (Model 2). By addition of other variables, either representing performance at the United Nations (Model 3) or trade relations (Model 4), the situation does not change.<sup>23</sup>

In the bivariate Model 1, the variable of interest is negative and significantly different from zero but it is so only at 10% significance level. That is not very persuasive, and since the significance fades out with inclusion of control variables the rather unexpected negative sign of the estimator does not look as a robust result and its value should not be overrated. According to results from the

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<sup>&</sup>lt;sup>23</sup> Very similar results could be seen after replacing the voting weights variable with voting power from the power indices analysis.

other models, it cannot be rejected that the voting weights estimator equals zero there.

Alibud	/1\	(2)	(2)	(4)
$\Delta librd_{_t}$	(1)	(2)	(3)	(4)
	β/se	β/se	β/se	β/se
$\Delta v w_t$	-0.860°	-0.174	-0.073	0.071
	(0.482)	(0.399)	(0.326)	(0.666)
$\Delta lgdp_{_{t}}$		-5.073**	-4.557**	-5.795**
		(1.468)	(1.559)	(1.735)
$\Delta unus_{t-2}$			-8.945**	
			(2.789)	
$\Delta unjap_{t-2}$			0.094	
			(1.665)	
$\Delta unchn_{t-2}$			-2.290	
			(3.015)	
$\Delta sc_{t}$			-0.110	
·			(0.282)	
$\Delta trus_{t}$				-64.669
				(122.295)
$\Delta trjap_{t}$				97.434
				(126.304)
$\Delta trchn_{t}$				191.414
•				(126.738)
$oldsymbol{eta}_0$	0.410**	1.252***	1.506***	1.277***
	(0.130)	(0.289)	(0.356)	(0.321)
			* p<0.01, **	
$R^2$	0.017	0.411	0.274	0.246
N	59	59	59	59

**Table 9:** OLS Estimates

Controlling for economic performance by addition of logarithmic GDP per capita variable drains all the significance from the voting weights variable. And it stays significant at 1% significance level over all Models where it is included. The

negative sign corresponds with a reasonable expectation that Bank's lending declines as a country gets wealthier.

The only other significant variable is the two times lagged accordance with U.S. voting at the United Nations General Assembly which proxies common strategic interest. Surprisingly, it has a different sign than it was discovered in previous studies (e.g. Kilby, 2010) for the votes important to the U.S. A reason of the difference may lie in use of all votes without distinction of the important ones but it rather lies in the fact that the method used here reflects only changes in variables, not their initial value. An average share of the UN General Assembly votes in accordance with the U.S. is only 18% over years 2006-2011; and for that small number it is likely that mainly U.S. allies decreased their compliance to the U.S. No other control variable shows significance.

Since the second phase of Voice Reform took place in 2010, the restricted time span poses some limitations to analysis. It would certainly be more appropriate to estimate model containing actual changes instead of the proposed changes, or at least to compare their results. However, the only change that happened till issuance of the latest Annual Report for year 2011 (World Bank, 2011) was an increase in Japan shareholdings, which had absolutely nothing in common with the proposed Reform changes. Taking the proposed future amounts of voting weights as informally representing the new distribution of power in the Bank, the results corresponds with the fact that the implementation goes very slow.

Further, according to the time lag in the process of approval, more years are usually necessary so that any changes would be reflected in approved commitments. So longer time distance would probably bring more visible and exact results. Anyway, although it would be exaggerated to see it as an irrefutable proof, the financial flows analysis does not falsify the previous results at all; the Voice Reform did not really alter functioning of the World Bank, at least in the area under study and by application of the tools used here.

# Conclusion

The Voice Reform seems as a result of an inevitable evolutionary process. A reform reflecting both internal institutional and external international situation had been demanded by critics for a relatively long time; and a solution to ineffectiveness, irrelevancy and illegitimacy would start to be needed sooner or later. Political unwillingness to give up former positions and power within the World Bank Group caused just a delay. Well, a bit more than that.

Despite revolutionary rhetoric and the proclaimed aim to assign more power to DTCs in the Group, neither power indices nor financial flows analysis shows a substantial change of the former positions. Power indices analysis shows that if the change in voting weights is carried out in the proposed way, the U.S. would certainly defend its leading position. Other large IBRD shareholders, in particular Japan but also Germany, France and United Kingdom, would decrease in both weights and power; mainly in favour of China which would come out as a major gainer.

That is rather an exception among DTCs which would in general stay underrepresented individually and also as a group at both an Executive Board and a Board of Governors. The situation is even worse at the Executive level than among Governors about which it is argued more often. Not even the new Executive Director for Sub-Saharan Africa improves the situation. The results of power indices were confirmed, or rather not disproved, by the analysis of financial flows. A basic conclusion could be made that the redistribution has not brought about any change in commitments made.

Although a redistribution of voting weights and powers was perceived almost as a magic cure-all the enthusiasm from Voice Reform text seems unconvincing, if not completely missing, in reality for now. The World Bank Annual Report for 2011 shows that no changes in the proposed direction have been put into effect. A future distribution of power within the World Bank Group will depend on the implementation; but also next realignments can help along the journey for which the Group set off.

The power indices and financial flows analysis conducted here are not able, and neither willing, to cover all changes that happen in the World Bank Group. For instance, a recently appointed president of the World Bank Group, Jim Yong Kim, may bring new impulse to the Group's future development and improve the so far unfavourable outcome of the Voice Reform. However, according to the results and historical experiences, outlook on the consequences of the Voice Reform is rather sceptical, at least for several upcoming years.

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# **List of Appendices**

**Appendix A: Bachelor Thesis Proposal** 

# **Appendices**

Jméno:

**Appendix A: Bachelor Thesis Proposal (Figure)** 

# Univerzita Karlova v Praze Fakulta sociálních věd Institut politologických studií

# PROJEKT BAKALÁŘSKÉ PRÁCE

# na téma

# Rostoucí síla rozvojových zemí a její vliv na rozhodování Světové banky

Příjmení:	Halamka
Ročník:	2. ročník
Akademický rok:	2010/2011
Konzultant:	Michal Parízek, M.Sc.
V Praze dne 6. května 20	)11
Souhlasím s vedením pra	áce

Radek

# 1. Úvod

# 1.1. Vymezení tématu a odůvodnění jeho výběru

Většina hlavních mezinárodní institucí vznikla po světových válkách ve 40. a 50. letech 20. století. Hlavním cílem těchto institucí byla podpora vzájemných vztahů mezi státy, zajištění míru, podpora hospodářského rozvoje a obhajoba lidských práv.

Zastoupení zemí v institucích a rozložení jejich hlasovacích práv reflektovalo rozložení politické moci daného časového období. Hlavní rozhodovací potenciál měly vítězné západní země a zejména USA. Díky tomu se mezinárodní instituce během Studené války staly prostředkem k rozšiřování sféry vlivu Západu.

Jak šel čas, do původně západních institucí se hlásily i země nezápadní, rozvojové, nově vzniklé. Velkým zlomem byl mimo jiné rozpad východního bloku v roce 1989. Ze zmiňovaných západních institucí se měly stát instituce globální. V době, kdy byla západní nadvláda v mezinárodních institucích podložena reálnou, nejen politickou, ale i ekonomickou a vojenskou nadřazeností, nedocházelo k dohadům o nespravedlnosti v rozdělení hlasovacích práv v rámci mezinárodních institucích. Jenže tento stav se brzy změnil.

Koncem 20. století a začátkem 21. století zaznamenaly některé rozvojové země bezprecedentní hospodářský růst a došlo k poklesu relativní síly západních velmocí v globálním měřítku. Tento nový stav s sebou přinesl stále se zesilující tlaky na změnu v poměru hlasovacích podílů v mezinárodních institucích. Zásadní změna nastala až v roce 2010, kdy došlo k největšímu přerozdělení hlasovacích podílů v Mezinárodním měnovém fondu a Světové bance od jejich vzniku.

Ve své práci se zaměřím na děje v rámci Světové Banky. Zkoumání uskutečněných změn a jejich vlivu na rozhodování Světové banky může poodhalit, jaké důsledky mohou mít změny, o kterých se mluví, i v ostatních mezinárodních institucích.

Světová Banka, jako jedna z hlavních mezinárodních institucí, která odpovídá výše uvedenému popisu, je vhodným objektem zkoumání. Její rozhodovací proces je méně závislý na vnějších potřebách zemí přijímacích pomoc než je tomu např. v případě poskytování pomoci Mezinárodním měnovým fondem. Světová banka

vede přehledné statistiky o tocích její finanční pomoci a struktuře rozdělení hlasovacích práv mezi členskými zeměmi.

# 1.2. Výzkumné otázky a hypotézy

1) Jde o významnou změnu v hlasovacích podílech?

Změna v rozdělení hlasovacích podílů v rámci Světové banky je všeobecně považována za významnou. Je však možné, že došlo k pouhému "pootočení rozhodovacích pravomocí", přičemž těžiště moci zůstalo beze změny.

2) Způsobila změna v hlasovacích podílech i změnu v přerozdělování finančních prostředků?

V zájmu každé země je prosazovat projekty, které se týkají jí samotné nebo zemí s ní spřátelených. Pokud došlo k významnějšímu posunu v rozdělení hlasovacích podílů, mělo by dojít i ke změně v toku finančních prostředků ze Světové banky.

# 1.3. Metoda zpracování tématu

K analýze daného problému je nutné prozkoumat možnosti v rámci rozhodovacích systémů daných institucí. Většina rozhodnutí je schvalována konsenzuálně, pouze minimum rozhodnutí je prováděno tajným hlasováním.

V nedávné době, ještě před změnou roku 2010, probíhala poměrně rozsáhlá debata o vhodnosti změn v zavedených strukturách mezinárodních institucí. Tato debata může poskytnou důležité teoretické zázemí pro hodnocení popisovaných změn.

I v současném globálním světě existují země, které k sobě mají blíže a které k sobě mají dále. Spřátelené země mohou vytvořením společného bloku dosáhnout prosazení projektů, které jsou poskytovány jim samotným nebo spřátelené zemi. K změření skutečných hlasovacích podílů jednotlivých zemí použiji Shapley-Shubik index a Penrose-Banzhaf index a porovnám jejich vývoj způsobený změnou v roce 2010.

K možnosti zkoumání koaličních potenciálů jednotlivých zemí vytvořím skupiny spřátelených zemí. Pokusím se o co nejobjektivnější rozdělení, založené

zejména na vzájemné závislosti zemí měřenou pomocí objemu vzájemného obchodu, surovinové závislosti, účasti ve stejných mezinárodních institucích apod.

Výsledky změny hlasovacích podílů, získané použitím zmíněných indexů, porovnám se změnou v reálných finančních tocích odcházejících ze Světové banky.

K analýze finančních toků použiji data o projektech udávaná samotnou Světovou bankou. Rozsáhlá a volně dostupná databáze poskytuje všechny nejdůležitější údaje – rok zadání projektu, přijímající země, poskytnuté finance, apod.

Za použití zmíněných dat se pokusím zachytit, zda došlo ke změně orientace finančních toků ze Světové banky po změně roku 2010. Jejich následné grafické znázornění přispěje k přehlednosti. Použitím jednoduchého ekonometrického modelu zjistím jaký vliv na změnu finančních toků má příslušnost státu k jednotlivým skupinám spřátelených zemí (viz výše).

Pro ujištění, že případné změny jsou způsobeny skutečně změnou v poměru hlasovacích podílů a nejsou pouhým důsledkem dlouhodobého trendu v poskytování finančních prostředku Světovou bankou, se pokusím zanalyzovat i dlouhodobější změny ve směřování finančních toků.

# 2. Předpokládaná osnova práce

- 1. Úvod
- 2. Rozhodovací systém Světové banky
- 2.1 Rozhodovací systém Světové banky
  - Analýza rozhodovacího systému Světové banky. Pochopení tohoto systému pomůže v následující analýze.
  - Zahrnutí výsledků debaty předcházející změně v roce 2010.
  - Byla snaha o zachování západního vlivu nad Světovou bankou promítnuta i do změny roku 2010?
- 2.3 Změna v hlasovacích podílech
  - Popis změny z roku 2010 a dřívějších, méně významných, změn v hlasovacích podílech.
- 2.4 Shapley-Shubik index a Penrose-Banzhaf index

- Aplikace zmíněných indexů a porovnání skutečné hlasovací síly jednotlivých zemí.
- Došlo k reálné změně v rozložení sil?
- 3. Analýza vývoje poskytování finančních prostředků
- 3.1 Rozdělení světových "sfér vlivu"
  - Zdůvodnění rozdělení a představení jednotlivých skupin.
- 3.2 Vývoj rozdělování finanční pomoci
  - Pro rozpoznání možného trendu, který by nám mohl ovlivnit závěry, je potřeba prozkoumat vývoj v rozhodování o přidělování finanční pomoci během delšího časového horizontu.
- 3.3 Porovnání finančních toků před a po změně
  - Detailnější analýza dat z vybraného období před změnou a celého období po změně.
  - Porovnání změn finančních toků se změnou reálné hlasovací síly získané pomocí zmíněných indexů.

### 4. Závěr

# 3. Předběžný seznam literatury a zdrojů

Jde pouze o předběžný seznam, další zdroje budou doplňovány v průběhu vypracování práce.

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