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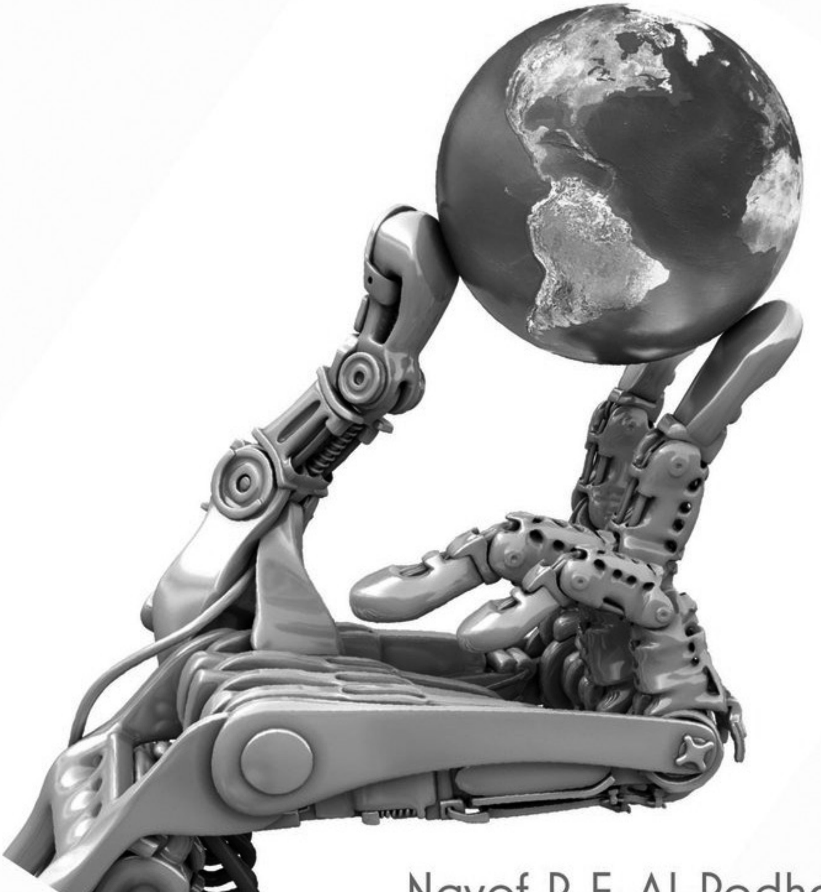

Nayef R.F. Al-Rodhan

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PAPER

The Complexity of the Future and the New Theories of Growth: Human Capital, Technology, Policy Choices and Global Governance

Giorgio Dominese

Abstract The paper is focused on the crucial issues of the New Theories of Growth but of course after a sharp premise on the quest for Global Governance stepping up and the opposite situation in which we are in these really months. The looming conflicts of the Second Cold War have special boundaries and are not conventional. ISIL is not really a traditional army and operates at global level much more than supposed. Isolated and individual countries responses are unrealistic and dangerous at the same time. The New Theories of Growth robustness and the opposite weakness of the traditional International Relations frames of interpretations and prescriptions are proposing the really "Prisoner's Dilemma" game theory results, where the convergence of aims and scope can't produce the indispensable sharing of risks and efforts by the two sides. But the interrelated conditionality and implications of Global Governance policies and procedures are forcing towards negotiated but not precarious or vulnerable results in world affairs. In the quite effective equation and outcomes, shown through the drivers and clusters of the Formel-G elaborated by the Research Division of the Deutsche Bank in 2005 but with reference to the rigorous range of theoretical propositions both from the distinguished scholars Romer-Mankiv-Weil from Berkeley University and the coincidentally two homonymous authors cholar Paul Romer from Stern School of New York University. They had already closed the circle that is now imposing a reshaping, change, innovation of ideas and attitudes also to the more sensitive policy choices centers. This is the basic conclusion from the many spin-off of this paper in some way challenging the traditional formalism of the too often aseptic and "zero-sum-game" contributions on the crucial issues for the economy, financial system, development and growth of all the humanity in the one world.

Keywords Global Governance, Conflicts and Terrorism, International Relations, New Theory of Growth, European Union, Environment, Corruption

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The impending change of the international order and the new players and factors determining policies and strategic choices, which once were an absolute monopoly of nation-states, empires and hegemonies, have now shown new profiles and tentative alternative processes still "work in progress" at the dawn of a planetary era as we are facing in these decades. It will be a very engaging age because it requires the acceptance of challenging and critically reviewing principles before given for eternal, adapting social, political, ethnic, identities but first and foremost new scientific and cultural assumptions and theories. No use to remain only spectators in a kind of comfortable process, with obsolete certitudes and simplified policies in mind when facing the complexity and the risks mounting in this very moment of the reshaping process.

The Looming Conflicts of the Second Cold War

The recent developments and the concrete looming of wide conflicts are showing the true "clash of civilizations", that is not only the proclaimed one by the US historian Samuel P. Huntington[1] few years ago - based mainly on the traditional contrasts and divide of faiths, ideologies and intellectual values, evoked as instrumental explanations easily communicated to the public and the "masses", through the simplified language of worldwide coverage and tragic spectacle that quite often this implies - but mainly the antagonism of two strategies and camps, due in part to deluded long caressed expectations and on the other side by cultural fundamentalism.

The first is attempting rationally to catalyze the new variables and factors of change in a sufficient least common multiple theoretical frame of values, policies and practices for an innovative global governance and interdependence among institutional, social, racial, religious, cultural often incompatible values. The second is fueling the fire on the still deeply unequal sharing of the benefits resulting from the already achieved value added outcomes of the last decades of global growing dimension of the international governance. With the results that a more integrated community of nations and states is not approaching but instead risking to be pushed far away. In this poisoned environment conflicts and terrorism might find further support and capabilities never before shown and practiced.

In other words, we have already in front of us a wide dimension of one economy, one finance, one technology, one science, one ICT, one fashion, one environment, one access to what never before had been so available, tempting, desirable for humanity: equal opportunities, gender equality, education for all, youth on stage, human rights, great mobility of people through borders, work and job opportunities worldwide. The list might be continued with tens of titles of value added reasons and benefits of the present and future scenario of the human community. But antagonism is prevailing instead of convergence, or better the main stream of the convergence is encountering

1 The true "clash of civilizations" is not only the proclaimed one by the US historian Samuel P. Huntington few years ago but mainly the antagonism of two strategies and camps, due in part to deluded long caressed expectations and on the other side by cultural fundamentalism.

a fierce resistance and counter attacks by the past, traditional doctrines and institutional representations.

Even so, could we imagine a future without global governance? The general assumption is that we can't not at this stage of change and innovation negate its existence, as the main common ground assumptions have already widely spreading inside society life style with a decisive support and scientific support all the most relevant schools of thinking and quantitative researches centers worldwide. Pascal Lamy, Director General of WTO, in a lecture at Oxford University in 2012, had in this way pictured the "state of the art" and no way back options: "We live in a world of ever-growing interdependence and interconnectedness. Our interdependence has grown beyond anyone's imagination in fact! Economic and financial shocks spread faster than ever before. With the recent economic crisis we discovered that the collapse of one part of an economy can trigger a chain-reaction across the globe. With the climate crisis, that our planet is an indivisible whole. With the food crisis, that we are dependent on each other's production and policies to feed ourselves. And with the flu epidemic, that speedy international cooperation is vital. The scope of the challenges the world is facing has changed profoundly in the past decades — more profoundly, I suspect, than we fully understand. The world of today is virtually unrecognizable from the world in which we lived one generation ago"[2].

A long way must be undertaken to spread the benefits to the many who all still staying at the window with growing resentments, listening the sirens of destabilizing conflicts and of extremist fractions. Nothing is more destabilizing than the deluded expectations due to the missed opportunities. In this situation is not really simply alarmistic to evoke the specter of a second Cold War.

The Origins of Totalitarianism and Therapies

The reference to the waves of provocative new reactionary opposition attempts to changing, bettering life and standing of the world community we are assisting is in fact really amazing and suggest some more deep scientific investigation on the contradictions and wrong policies adopted in the last post-colonial and Third World long spring season hopes because incapable to jump over the previous models of governance, while attributing too much relevance to continuities and contiguities with nationalistic and sectarians heritages. We lost a window of opportunities and to rebuild now confidence and trust might become harder and harder, in presence of negative attitudes and contaminating apologetic fundamentalism. The opportunistic and instrumental complicities of all many countries and great powers had been proved in reports, files and diplomatic documents from institutional archives circulating now free of restriction or even declassified, after the expiration of the legal terms for total secrecy. To research and read through them we might often remain astonished.

More or less officially admissions are now circulating on wrong evaluations, mistakes and policies in situations and events occurred in the five continents, with a systematic

2 P. Lamy, (2012) Director General of WTO, in a lecture at Oxford University in 2012

lack of coherent reforming support to the newly entered post-colonial and independent players in the world of international affairs. The control of basic raw materials, oil and gas production, commodity supply chain and cheap labor encountered the strategic needs and conditionality of military relevance, in the age of bipolar confrontation and first Cold War lasting for almost a century.

At least until the end of Soviet Union and the "deicing" of the blocking confrontation, when the redemption of history had signed great pages of high profile and farsighted visions both in Russia and in the Euro-Atlantic policy, intellectual, academic more illuminated circles and decision making institutions. It was the process and melting pot of the Helsinki Final Act[3] of the Conference on Security and Co-operation in Europe, signed in the Finnish capital on August 1, 1975 by 35 Euro-Atlantic and Eastern European countries involved.

A good lesson for the future, where the new incumbent but different kind of possible Cold War shouldn't suggested to the main powers the fatal omissions and mistakes of the past policies and failures, specifically in the really regions of the present conflicts and terroristic unpredictable forms of war deeply menacing the international order and bringing higher the risks of continental war.

From the organized barbarian ISIL terrorism in a and open challenge to the main emblematic symbols or signs of civilization to isolated crimes and mass murdering by single persons and deadly serial killers, inspired by hate against community places like schools, universities, social centers, place for gathering and enjoy music, sports, cultural events or for personal retaliation. From brutality of violence against "differences" in race, religions, ethnical provenance, gender to nostalgic movements of nationalistic inspiration or pan-totalitarian trivial and demagogic aims, easily poured and absorbed by threatened public opinions. Finally, the exaltation and nostalgic "apologia" of political systems and social organizations as aberrant as fascism, sovietism, nationalism, clericalism, racism, nihilism, totalitarianism, militarism which unique faith at the end is the progressive abolishment of fundamental individual and groups freedom, with evocation of ethnic cleansings and forced assimilation of peoples and minorities.

The pursuit of forms of government, economies and institutions following ancestral dirigistic and authoritarian model already failed many times in past history with catastrophic economic, social and political impact for the entire humanity, all these syndromes are before our eyes. Hannah Arendt's[4] fundamental main 1951 work "The Origins of Totalitarianism", "Elemente und Ursprünge totaler Herrschaft", analyzed in a unique striking intellectual contribution all these phenomena and the tragedies they had induced in Europe but with an effective universal applicability. It's a kind of situation as we are facing now, after the Ukrainian war directly supported by Russia; the Crimea "Anschluss" with analogies with the Austrian past memories; the four years of Syrian civil war waged by the despotic regime in Damascus - now hopefully

3 Helsinki Final Act http://www.osce.org/mc/39501. The views, opinions, conclusions and other information expressed in this document are not given nor necessarily endorsed by the Organization for Security and Co-operation in Europe (OSCE) unless the OSCE is explicitly defined as the Author of this document.

4 Hannah Arendt's fundamental main 1951 work "The Origins of Totalitarianism", Harcourt, Brace and Co., 1951; "Elemente und Ursprünge totaler Herrschaft", Schocken Books, 1951

entered toward an end after the UN resolution just in the threshold of 2016 – a war that transformed into a devastating fire burning hundreds of thousand lives, pushing refuges to escape toward the "European dream", with implications and burdens of extraordinary relevance but with a long term credit that will sign the victory over the tyrants in the Middle East and North Africa.

International Relations Theories at Stake

Utopias had been the drug of people when no ways to resolve their basic problems in home countries occurred or because a wrongly interpreted value of not "interference" allowed the international community, first of all the United Nations - created to the purposes of peace and prosperity for all at the end of World War II but step by step transformed into a "zero sum game" Glass Palace in New York, simply for the use of the five Yalta great powers formal endorsement of agreements often reached out of any international law and human rights consideration -, while staying aside and leave many regional conflicts to be transformed into blood bathes and atrocities. The Balkan War 20 years ago, after the ethnic cleaning and criminal killing of thousands Bosnians by the Serbian troops and special units had been a unique case of international responsibility and of judicial follow ups, with the politician generals and top responsible of the horrible crimes against humanity belonging to all the factions severely judged sentences by The International Criminal Tribunal for the former Yugoslavia[5] sand condemned to multiples life sentences for crimes against humanity.

There will be no other way out than entering the arena with a shared project in mind, supported by a wide coalition of genuine, transparent will and of course a military capability and credibility if we want in the future to avoid feeding an irreversible, already mentioned syndrome of "World War III" and caressing rebuilding up tragic memory sphere of influences, a perspective caressed by some regimes irresponsible analysts and experts as a possible "exit strategy". These old style "realistic" illusions represent the worst scenario that would fatally induce dramatic consequences. The world we are discussing in this paper is antagonist to these ideas, forces and military actions leading them. Soon or later, the "Redde rationem" of Latin memories will fatally reestablish the civilization and human rights broken by genocide, aggressions and atrocities.

The Prisoner's Dilemma

The sophisticated analytical tools, models, theories and the infinite capacity of quantitative processing in almost real time provided by the data processing and informatics revolutionary tools must be mobilized and new deterrence of ideas and mightiness quickly deployed to crush any possible challenger. It's unthinkable to become again prisoners of these phantoms. We cannot be victims of the "prisoners dilemma" in its various assumptions and applications.

5 United Nations The International Criminal Tribunal for the former Yugoslavia, 1996-2015, The Hague, http://www.icty.org/en/cases/judgement-list

A multipolar, multifaceted approach and solution to the "dilemma". The full understanding of this definition could bring to a fair alternative that could be better appreciated by applying the analyses and options of the global governance recalled in this paper.

The prisoner's dilemma is a canonical example analyzed in game theory that shows why two purely "rational" individuals might not cooperate, even if it appears that it is in their best interests to do so. It was originally framed by Merrill Flood and Melvin Dresher working at Rand in 1950, as part of the Rand Corporation's investigations on the game theory, which Rand pursued because of possible applications to nuclear strategy options during the first Cold War (Stanford Encyclopedia of Philosophy)[6]. The two players in the game can choose between two moves, either "cooperate" or "defect". The idea is that each player gains when both cooperate, but if only one of them cooperates, the other one, who defects, will gain more. If both defect, both lose (or gain very little) but not as much as the "cheated" co-operator, whose cooperation is not returned. Such a distribution of losses and gains seems natural for many situations, since the co-operator whose action is not returned will lose resources to the defector, without either of them being able to collect the alternative additional gain coming from the "synergy" of their cooperation. For simplicity we might consider the Prisoner's dilemma as zero-sum insofar as there is no mutual cooperation

It is quite a demanding age, requiring change and effective solutions without any easy bridging way out if not at growing risk for the entire humanity. We have to accept discussing and openly confronting, following the principle of arguing and critically reviewing the asymmetric social, political, ethical values, but first of all praising the strong scientific and cultural beliefs and traditions of the whole international community we symbolize with our civilization, a "renaissance" kind of universalistic philosophy and ideals.

This does not mean we have to renounce national values, peculiarities of "identity and diversity", sovereignty boundaries that summarize the universal intellectual and spiritual heritage, the ethical and moral values of a varieties of philosophic doctrines and religious faiths. That's why International Relations shortcut refuge into a row "realism", even if inspired by Thucydides' "History of the Peloponnesian War"[7] great contribution, as it represents a negative, fatalistic, opposite intellectual and political choice than the never lasting search for more advanced and sophisticated doctrines. The same might be said of "Machiavellian", an approach very often associated with political deceit, deviousness and realpolitik. But main commentators[8] , such as Baruch Spinoza, Jean-Jacques Rousseau and Denis Diderot, have argued that Machiavelli

6 Prisoner's Dilemma, http://plato.stanford.edu/entries/prisoner-dilemma/; Stanford Encyclopedia of Philosophy, Sep 4, 1997. The prisoner's dilemma is a canonical example of a game analyzed in game theory that shows why two purely "rational" individuals might not cooperate, even if it appears that it is in their best interests to do so. It was originally framed by Merrill Flood and Melvin Dresher working at RAND in 1950.

7 Thucydides' "History of the Peloponnesian War", MIT University Press, Boston

8 B. Spinoza, Tractatus theologico politicua, V, 7; D. Diderot, Machivellianism, in Encyclopedie; J.-J. Rousseau, Contratto sociale, III, 6

was actually a Republican, even when writing The Prince, and his writings were an inspiration to Enlightenment proponents of modern democratic political philosophy and in fact of crucial International Relations theories.

As in Economics, in the broad Social Sciences, Technology, Human Capital and Environment, just to mention, the new factors and deep scenario horizons impose to move ahead in the theoretic frame of an interdependent, constructive and multiplayers world, assuming the new theories of IRs and coherent guidelines as indispensable to the governance of the still new Century XXI with its incredible promises for people and leaderships of "good will", as could be appreciated in the textbook by Robert Jackson and Georg Sørensen[9] "Introduction to International Relations: Theories and Approaches" offered now in the 6th Edition by Oxford University Press.

European Union Turning Point

The European Union is the most remarkable turning point impressed with the constituent Treaty of Rome in 1957 to the progressive integration and devolution to the Union of sovereign powers. From that historical date we have assisted to the upgrade of innovative approach to specific international connected policies with the EURO Monetary Union, that up today has 19 member states. If we assume that almost all EURO countries are at the same time also NATO 28 members with the newly invited member Montenegro (apart from Austria for the reason of the State Treaty after the Second World War) and that Switzerland, not being neither in EU nor in EURO zone and in NATO, on the base of the Constitutional neutrality of the Confederation, has in any case specific relevant harmonization agreements and common regulatory procedures in main fields of EU governance, we can assume as historic and worldwide main example of successful regional integration and interdependence. Non-statehood approach had been implemented and fine-tuned in the almost 60 years from the EU constitution in quite challenging passages and growing international implications.

But also Europe is in the phase of reviewing and implement the constitutional structure of the Union, not simply because of last waves of refugees arrival from Near and Middle East on fire but as the achieved integration must be an adaptable system of rules and sharing of powers for an enlarged "common house" as EU had become. Grexit tensions and fears have found in 2015 a positive conclusion, after exhausting negotiations, while the UK referendum on the EU membership is posing new challenges to the Brussels governance. Updated and more new institutional set of powers and procedures would be in any case introduced as much as the international standards, competitiveness, regulatory and new growth conditions will suggest and request. The auspices of the "United States of Europe" seem in any case still far from the subsidiarity principle and the peculiar, flexible concept of federalist approach introduced with the Treaty of Rome and representing a possible common ground of convergence among all the EU member countries, UK included.

9 Robert Jackson and Georg Sørensen "Introduction to International Relations: Theories and Approaches", 6th Edition 2015 (Oxford University Press

These attitudes and mindset should be presented and diffused among the individual citizens but beforehand and immediately it requires leaderships, elites, knowledge, competences, investments, reforms, resources and permanent innovation based on cultural and technological quickly advancing step-ups, on environmental and energetic priorities which are permanently evolving and sweeping away yesterday's experience of mankind and society.

Never before this historic period of passage had shown the indispensable need for an architecture of international governance based on the preconditions and the forthcoming needs of assimilation, the new values, credible pillars deeply involving institutions, public, private, productive, education, entrepreneurial and social levels.

To imagine the diffusion of the international governance model that European Union had been capable to build up represents is in some ways far from a realistic perspective. But similar but peculiar regional transnational organizations - tailored on specificities, peculiarities, cultural and different history of other potential main regional approaches to governance in Asia, Latin America and Africa - have already now a large background of research and applied experiences. As I said, the "European dream" remains the best visiting card to penetrate the world spirit and the openness of economies, universities, high research institutions, technologies exchanges, arts and culture.

This is a convergent interpretation of the complexity of the future proposed more than twenty years earlier by the controversial but farsighted French philosopher Edgar Morin[10] in his famous essays "How to govern the future complexities" and in the essay "Seven Complex Lessons in Education for the Future".

The New Theories of Growth and Global Governance

A relevant contribution to the understanding of the irreversible changes factors up from 1980 had been brought by the debate and massive scientific efforts that had accompanied the New Theories of Growth appearance and now running fast towards not yet foreseen analytic and applied results and further interpretation tools for the interdependence and convergence of Economics, Law, Innovation, Environment, Alternative Energy, Aerospace, Social Sciences into a consistent theoretical background for the effective international Governance. Human capital factor is in need of this high profile convergence to remain always adequate to future challenges and advancements.

Where IRs could not proceed due to the before mentioned reasons, these new platforms of theories around the basic principles of Growth and Governance have achieved great applied results and scientific robustness. We will see in the next sections the key factors and the implications for the international governance. Economists have often marginalized or even criticized, until the last decades, the role played by "institutions" in the productive system, while they have always better dedicated to the operative aspects of economy, finance and corporate system at work, in one word following a business approach. Also Keynesian and neo-classic schools have

10 E. Morin, a French philosopher and sociologist who has been internationally recognized for his work on complexity and "complex thought". "How to govern the future complexities" and "Seven Complex Lessons in Education for the Future".

focused these key variables but never entering deeply into the effects of the ongoing change in the whole system of governance left out of the reshaping in the future transitional time. The scenario and change from here up to 2030-2050 is simply amazing and positively unpredictable: environment, energy, innovative discoveries in almost all the traditional and advance sectors, agro-industrial advancements, welfare, health, supercomputing unbelievable a and institutional implications. In fact, the institutions determine nowadays the way and conditionality into which “systems” much be governed effectively and in fine-tuned way in an ever advancing summing up of variables covering all aspects of governance, at national and transnational levels.

“The invisible hand” is a metaphor used by Adam Smith[11] to describe unintended social benefits resulting from individual actions, first of all and mainly with respect to income distribution. Now that “the hand” on the one side has become more visible, transparent and with high degree of efficiency even when interfering with the classic theories but on the other has shifted into a more impenetrable and invisible challenge and daily confrontation to protect the sensitive “core” of the. That’s why - to use a popular assumption not far from true - hackers are at work tirelessly to penetrate the restricted area of governance at all levels, even the apparently less important. It’s a big game with a high stakes, where no main player can stay at the window, so everyone listens, monitor and interfere. We might say quoting the biblical sentence: “who is without sin cast the first stone”

The “policy choices”, even if inside different architectures and organizations of the factors frames, are connecting in an interdependent way each country to others, a net of societies and markets looking for a desired permanent trend of growth and welfare. The same interdependence is involving the research and expertise sectors and professionals. The same binding conclusions can be easily be drawn even if the lack of a systemic and scientific integrated approach to face the challenges of global governance in a conditions of partial asymmetry. We are talking of course in general assumptions, as there are many exceptions and peculiarities.

The Turning Point Season 1980-2010

We can say that 1980 and the years immediately following brought a breakthrough for the change in attitudes, knowledge and progress regarding all these issues. But in the previous century, some brilliant scientists in the main disciplines spanning a broad horizon stood out in writing, teaching, researching, publishing and predicting the need of a “common ground” for the advancements in governing the changing economy, society and institutions of all the levels existing now. A kind of transnational movement in the name of the better governance of the planet.

What had happen in around 1980 to 2010 to make these years such turning point for the re-discussion and the new assumptions on world governance? The big push start really here and proceeded quickly up to the beginning of the new Century XXI. A constellation of many but very significant outcomes of researches and institutional focusing on the

11 “The invisible hand” is a metaphor used by Adam Smith to describe unintended social benefits resulting from individual actions, first of all and mainly with respect to income distribution.

new stage of growth and development denominated “global”, in principle, and affecting all the leaderships as well as professionals, entrepreneurs, lawmakers and intellectuals. As in the theoretic applications of the cobweb model, even the International Relations were becoming more and more affected by the new waves of theories. We assisted to a flourishing of tentative but robust policy advice outcomes circulating and pushing ahead new knowledge advancements.

These remarks are a bit far off - I am aware - from the traditional approach to systemic analyses. But at the end, we have fuel a wider debate on peculiar and in many ways different starting conditions. No forms of conditionality or corporative barrier or intellectual is anymore granted to segments or islands with boundaries and “off-limits” scientific territories. The race for a better scientific approach to the future “horizons” of knowledge and intensive research dedication and value added. The same geopolitics was facing the parallel ”vexata questio” on the limits of power but of course no limits are any more sustainable if not being widely shared and negotiated with all the players on specific issues that are under questioning and debating in a growing number of critical cases.

From international to global. Around the 1990s the world experienced the passage from a traditional approach endogeneity and growth to the new theories cultivated in the best thin-tank worldwide. Universally accepted new theories domain and applied quantitative and sophisticated measurements of variables - still never well investigated and even when not yet well grounded on a scientific shared way but just posed into a strong trend line of credibility and consensus - start to be animated by economists and research centers. However, incredible but true, the real avant-gardes of thinkers and analysts were coming, before 1980, from the International Relations studies and researches, attempting to provide a conceptual framework of robust theoretical perspective to the emerging but quickly inflated global quagmire. IRs theories were compared to pairs of different colored sunglasses that allow the wearer to see only salient events relevant to the theory; e.g. an adherent follower of “realism” might completely disregard an event that a constructivist were deeming as crucial, and vice versa.

The three most analyzed theories realism, liberalism and constructivism went quickly at odds between the consistent conservative attitude and a reforming dynamic and very determined minority of scholars, experts and researchers. The third theoretical frame was the new “intriguing” entry, as it’s mainly connected with the experience and upgrading of the role and power of the European Union, at this crucial passage of the new Century almost enlarged to the today’s dimension, with 28 member countries.

The theories of constructivism had propagated and asserted themselves rather strongly in the policy choices of the EU’s regulatory ruling, in the ECB Eurozone strategy, in the economic and financial guidelines within the most advanced form of regional governance existing worldwide and assuming a growing power and “soft” but effective capability to give voice and enforce political will up to today. Even the danger of a Grexit has been managed in 2015 following innovative and non-orthodox monetary, financial and policy choices, leaving the world quite wondering and questioning. A good ground for future debate and advanced research. Which amazing events happened then in the years around 1990? Well, to mention just some of the most astonishing geopolitics events we remain astonished: the Internet changing completely the economic and human relations in the world; the German reunification opening the season in 1989-1990; the end of Soviet Union in 1991; the rising of China to a distinctive great power, with almost two digits growth yoy, in a still socialist frame but in a progressively open market system and society; the war in the Former Yugoslavia bringing new hopes in the Balkans; the shocking, unpredictable terroristic attack on 9/11 to the Twin Towers and US symbols, just an announcement of the contemporary ISIL terroristic massive attacks in Paris, Bamako, Lake Chad, Ankara, Nigeria, Beirut, Sinai Russian airplane bomb, California. The contagion had been spreading out by the four years a civil war in Syria, in fact a regime butchery tolling almost three hundred thousand lives and at least four millions refugees outside the country; by the open wounds of the still debated and argued Iraq war and repercussions; by the not yet resolved Israeli military occupation of West Bank and the spreading the lacerating problems; by the even wider implications of the spreading conflicts and terrorism from the Great Middle East to Europe, Africa, USA and Asia.

Economics and real economy could add a better rationality, the real substance, the very bright thinking behind these events: the technological revolution; the "health of nations", prolonging life beyond any expectations; the environmental issue passing from a deficit spending to a factor of production; the human capital incorporated into innovation becoming the crucial factor of production; the new concept of security and defense; wider inequalities destabilizing the so called developed world and its central social stability, with two quintiles of middle classes inhabitants happily in power. All these issues give now enough reason to a "re-visitation" of the chaos theories, as the world collapse in fact did not come and will not come looking to the developments taking place in this end of 2015-beginning 2016 scenario.

The Transition Towards 2030-2050

We are simply in a major transitional period of worldwide growth and governance towards 2030-2050. Good point to restart with our present and future. Two cornerstones in the academic and intellectual debate had certainly been the in depth research analyses with "A Contribution to the Empirics of Economic Growth" by Romer-Mankiv-Weil[12], the trio from Berkeley University, published in preview by the prestigious NBER on December 1990, a real turning point in the Economic Sciences theoretical architecture on production, growth, institutions, technology and policy choices. The second was the silent, initially almost unknown scientific activity with a sophisticated value added of the contributions by Ronal H. Coase[13], who was Nobel Prize of Economic Sciences

12 N. Gregory Mankiw, David Romer, David N. Wei , "A Contribution to the Empirics of Economic Growth", NBER Working Paper No. 3541, 1990

13 Professor Ronald H. Coase was Clifton R. Musser Professor Emeritus of Economics at the University of Chicago Law School. For his discovery and clarification of the significance of transaction costs and property rights for the institutional structure and functioning of the economy, Ronald Coase received the Alfred Nobel Memorial Prize in Economic Sciences in 1991.

in 1991, with his memorable lecture in Stockholm on "The Institutional Structure of Production".

I copy and paste first the presentation of these assumptions on the Empirics of Economic Growth with no further comments, as we can all agree for a global standing scientific acclamation.

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A CONTRIBUTION TO THE EMPIRICS
OF ECONOMIC GROWTH
N. Gregory Mankiw
David Romer
David N. Weil
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A CONTRIBUTION TO THE EMPIRICS
OF ECONOMIC GROWTH
ABSTRACT

This paper examines whether the Solow growth model is consistent with the international variation in the standard of living. It shows that an augmented Solow model that includes accumulation of human as well as physical capital provides an excellent description of the cross—country data. The model explains about 80 percent of the international variation in income per capita, and the estimated influences of physical—capital accumulation, human—capital accumulation, and population growth confirm the model's predictions. The paper also examines the implications of the Solow model for convergence in standards of living-—that is, for whether poor countries tend to grow faster than rich countries. The evidence indicates that, holding population growth and capital accumulation constant, countries converge at about the rate the augmented

Solow model predicts.
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But Ronald Coase [14] too had been really a lighthouse and maritime compass in the early spring of the economic research at that time. He was announcing the great, impressive change, in his Nobel Lecture on "The Institutional Structure of Production" and in a following interview from where I take some more lines of reference.

"In my long life I have known some great economists but I have never counted myself among their number nor walked in their company. I have made no innovations in high theory. My contribution to economics has been to urge the inclusion in our analysis of features of the economic system so obvious that, like the postman in G.K. Chesterton's Father Brown tale, The Invisible Man, they have tended to be overlooked. Nonetheless, once included in the analysis, they will, as I believe, bring about a complete change in the structure of economic theory, at least in what is called price theory or microeconomics. What I have done is to show the importance for the working of the economic system of what may be termed the institutional structure of production. In this lecture I shall explain why, in my view, these features of the economic system were ignored and why their recognition will lead to a change in the way we analyse the working of the economic system and in the way we think about economic policy, changes which are already beginning to occur. I will also speak about the empirical work that needs to be done if this transformation in our approach is to increase our understanding. In speaking about this transformation, I do not wish to suggest that it is the result of my work alone. Olivier Williamson, Harold Demsetz, Steven Cheung, among others, have made outstanding contributions to the subject and without their work and that of many others, I doubt whether the significance of my writings would have been recognized". And now the incipit of Professor Coase's[15] interview. "What I'm going to talk about today is why economics will change. I talk about it because I don't only think it will change, I think it ought to change. And also I'd like to say something about the part which the University of Missouri will play in bringing it about. It will take a long time. It won't be an easy task, but I'm glad there are people here who are willing to undertake it. What I'm saying today is not in an ordinary sense a lecture, it is just a talk, perhaps one would say a battle cry. It is just intended to give my views

14 These citations are from Professor Ronald H. Coase's Nobel Prize Lecture in Stockholm and following comments.
15 "The Institutional Structure of Production" interview

on this subject, why I think that economics will change. It is a striking – and for that matter depressing – feature of economics that it has such a static character. It is still the subject that Adam Smith created. It has the same shape, the same set of problems".

"Now of course we've made improvements, we've corrected some errors, we've tightened the argument, but one could still give a course based on Adam Smith. He was perhaps the greatest economist who has ever been, but the difference between what has happened in economics and what we find in the natural sciences such as physics, chemistry, or biology is really quite extraordinary. Isaac Newton was a great man. He made a great contribution, but you wouldn't really base a lecture today in physics on Isaac Newton, or in chemistry on Lavoisier, or in biology on Charles Darwin. Charles Darwin was a great man, but we no longer accept his views on inheritance and therefore on how evolution works. Changes in physics, chemistry, and biology continue to this day. It so happens that before taking a degree in commerce, for a short period I started to take a degree in chemistry. What was taught then as chemistry was completely different from what is taught today. Francis Crick has called the old chemistry just a series of recipes. And my recollection of what I was taught suggests that was accurate".

Deutsche Bank Research Formel-G[16]

From the theories to the applications the distance was really short. Few years later, Deutsche Bank Research elaborated the Formel-G, a chapter of a frame program on Megatrend 2020 prepared in Frankfurt. Summarizing all the giant elaborations and testing done by the DBR Division, I focus now on the Report three crucial passages.

Theory and methodology

After the first results have been presented and the analytical framework has been outlined, the next two sections explain the fundamentals of modern theoretical and empirical growth analysis. An important element of Formel-G will be derived: the econometric equation.

Searching for technological progress

Growth forecasts must have a solid theoretical foundation. The basis of most growth analyses is the neoclassical production function in which output Y is a function of labour input L, capital input K and the level of technology A (Solow residual; usually called "total factor productivity"). Growth decompositions divide actual growth into these three components. However, over the long-term, the sole driver of any growth of per capita output is the progress of technology A. It also is crucial for the long-term increase in the capital stock per capita[17] . Therefore, forecasts of economic growth with the help of simple growth decompositions require more or less arbitrary assumptions

16 Deutsche Bank Research Formel-G

17 This is set out very clearly by Barro, Sala-i-Martin (2004), pp. 457 and 460.Hanna

on technological progress[18] . They do not explain the really interesting variable A but bury it in an assumption. Therefore, simple growth decompositions are not suitable for forecasting.

Theoretical foundation: the production function [19]

Production function in the Solow model

$$Y_t = K_t^{\alpha} \cdot (A_t \cdot L_t)^{1-\alpha}$$

The often assumed absolute convergence of income levels between countries (i.e. poor countries' GDP grows faster than rich countries') also lacks theoretical and empirical support. There is no automatism: higher income levels do not fall from heaven like manna but require hard work[20] . GDP of a country only converges to the country-specific income level that is determined by that country's growth drivers.

Therefore, any useful model of the future has to explain technological progress. This is easier said than done, however. Mankiw/Romer/Weil made a path breaking contribution in 1992 by incorporating human capital H as a measure for the quality of labour input into the empirical growth analysis. Human capital describes a person's ability to produce output efficiently and to develop new products. This important additional variable helped significantly in explaining historic income differences across countries.The often assumed absolute convergence of income levels between countries (i.e. poor countries' GDP grows faster than rich countries') also lacks theoretical and empirical support. There is no automatism: higher income levels do not fall from heaven like manna but require hard work . GDP of a country only converges to the country-specific income level that is determined by that country's growth drivers.Therefore, any useful model of the future has to explain technological progress. This is easier said than done, however. Mankiw/Romer/Weil made a path breaking contribution in 1992 by incorporating human capital H as a measure for the quality of labour input into the empirical growth analysis. Human capital describes a person's ability to produce output efficiently and to develop new products. This important additional variable helped significantly in explaining historic income differences across countries.

Production function in the Mankiw/Romer/Weil model:

$$Y_t = K_t^{\alpha} \cdot H_t^{\beta} \cdot (\tilde{A}_t \cdot L_t)^{1-\alpha-\beta}$$

For empirical growth analysis, this was a great step forward but not fully satisfactory yet. Both theoretical and empirical work of the last ten years tried to model the remaining, unexplained share of technological change after human capital is taken into consideration. The objective is to explain economic growth as fully as possible in the model by incorporating a further policy variable P (or several variables). Exogenous, unexplainable influences are to be minimised.

18 For example, filter techniques with averages of the past are applied or absolute convergence with other countries is assumed.

19 Theoretical foundation: the production function

20 Easterly and Levine (2001) even observe a divergence in income levels.

Production function in Formel-G

$$Y_t = K_t^{\alpha} \cdot H_t^{\beta} \cdot (P_t \cdot \tilde{A}_t \cdot L_t)^{1-\alpha-\beta}$$

The search for P gave rise to a flourishing literature dealing with the role of politics, institutions, knowledge and innovation[21] . In their overview, Durlauf, Johnson and Temple[22] (2004) identify 42 “growth theories” using a total of 102 variables – which may be combined in different variations[23] .

Although theory does not produce a clear conclusion on the “correct” growth model (the “correct” P) it helps us identify potential growth drivers. The decision as to which additional variables really have a statistically and economically significant link with growth will have to be based on econometric analysis.

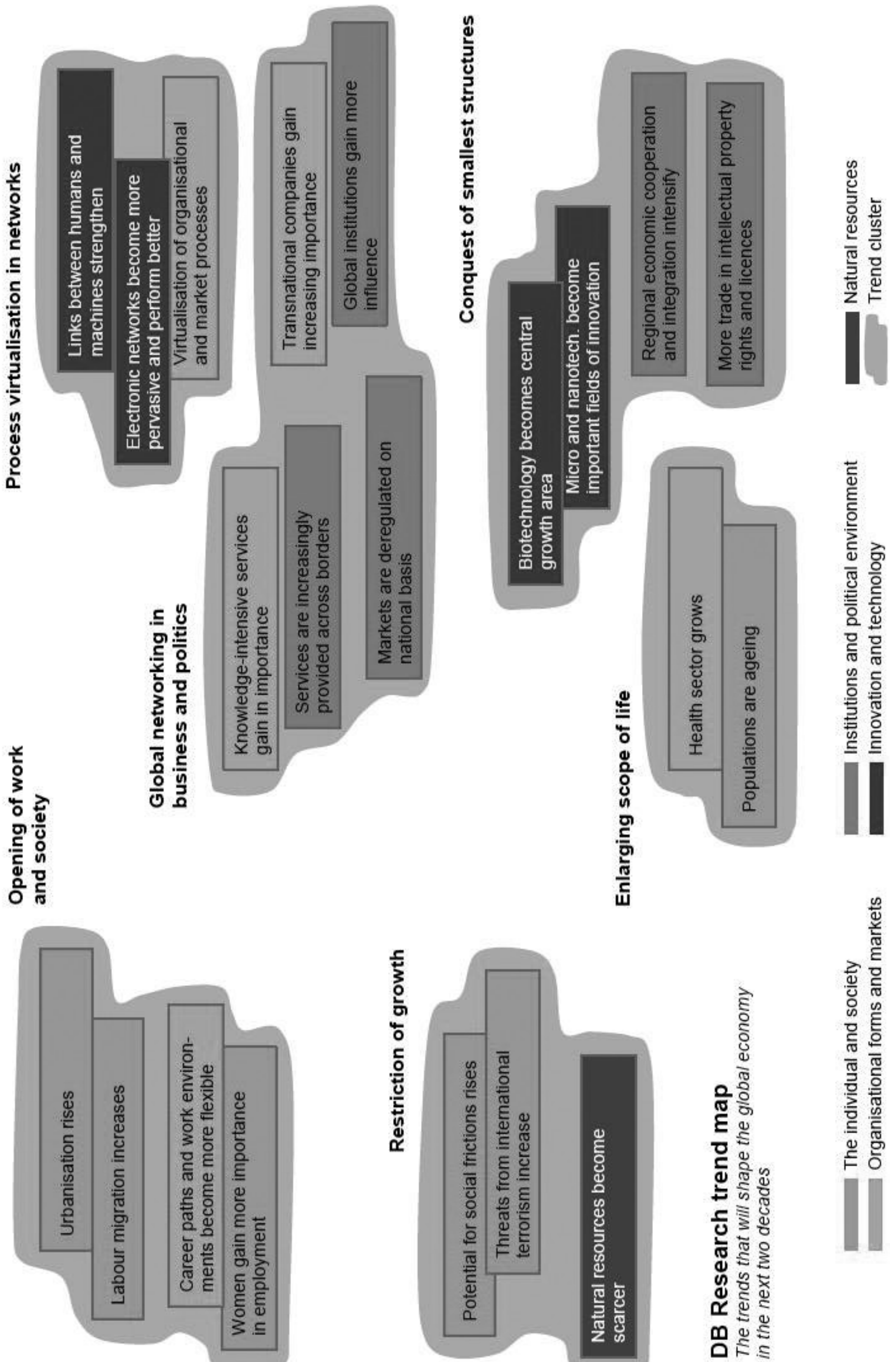
As I have now presented in this very visual impact “facts”, the entire system of reporting and analyzing the world main factors and variables had simply jumped from the past to the future, without passing for any intermediate rest, even at the price of some scientific weakness open to the further in depth debate in all the research community. In Annex I, you will find an advanced globalization Index prepared annually by KOF Index of Globalization by the Swiss Federal Institute of Technology in Zurich (ETHZ), is one of top reference ranking, measurement and weighting of the before mentioned variable P. The KOF Index of Globalization offer the full countries ranking on the following three main indicator: Political Globalization, Social Globalization, Economic Globalization and a overall Globalization index. For more definition and methodologic details visit the http://globalization.kof.ethz.ch/[24]

Last but not Least

A special attention must be dedicated to Environment, Welfare (Annex 2), Human Capital, Higher Education and University, in one word to the institutional choices main crucial priorities, the Public Policy at global level. Just consider the relevance of the Environment and Climate in absorbing governmental expenditures worldwide. And see how much our countries public budgets are investing for the Welfare in a broad accession. Laws, regulations, juridical and judicial, policies and fight against corruption[25] (Annex 3 and 4) are the becoming top priorities for all the countries. Sound economy and political systems are incompatible with corruption. Corruption, the abuse of entrusted power for private gain, is the single greatest obstacle to economic and social development around the world. It distorts markets, stifles economic growth, debases democracy and undermines the rule of law (Annex 5).

21 The World Bank, the IMF, the OECD and the NBER have contributed many new insights with new data sets and a large number of publications.
22 Durlauf, Johnson and Temple (2004)
23 Temple (1999) also gives an excellent overview.
24 KOF Index of Globalization by the Swiss Federal Institute, 2015: http://globalization.kof.ethz.ch/
25 T. Persson, G. Tabellini and F.Trebbi, Electoral Rules and Corruption, Journal of the European Economic Association, Journal of the European Economic Association, Volume 1, Issue 4, pages 958–989, June 2003; Annex 3 and Corruption Perception Index 2014 and Clean Business is Good Business, Annex 4, 2008.

Figure 1 DBR - Deutsche Bank Research's trend map



Spreading around the world, representing 5-7 % of the global GDP and let's see also the ranking as they are meaningful. Corruption, the abuse of entrusted power for private gain, is the single greatest obstacle to economic and social development around the world. It distorts markets, stifles economic growth, debases democracy and undermines the rule of law. Electoral systems are quite often connected to the relevance of this phenomena in the public investments and procurements, where I add in Annex the data showing almost 25% of these expenditures are absorbed by direct or indirect "corruption" of public and private sectors. More than these data, I have added the OECD SOCIAL EXPENDITURE UPDATE 2014[26], (Annex 2), with an overview on the crucial welfare and social standing of the worldwide regions and countries

Conclusions

Arriving at the conclusions of this paper, I have to introduce a specular model by Paul Romer[27] , as the Romer deeply tied to New Growth Theories are in fact two: David Romer, one of the great scholars trio at Berkley University and previously at Princeton University, to whom I have assigned a tribute and recognition for his outstanding innovative contribution to a breakthrough in the previous theories of endogenous growth, without dismissing them; Paul Michael Romer, coincidentally two homonymous authors as David, an eclectic researcher and entrepreneurial spirit, professor of economics at the Stern School of Business at New York University and previously senior fellow at Stanford University's Center for International Development.

What distinguish the two thinkers and their vision of the New Theories of Growth is in fact the degree of emphasis and the implications of a major role of policy choices and governments in what was before supposed to be mainly an endogenous results from the upcoming relevant factors of production, namely human capital and technology. Even if I had perceived perceive the trio Romer-Mankiv-Weil[28] as the really one introducing a new general approach to the theoretical assumptions and applied implications, I must say that the visons emerging from his model of the New Theory of Growth - where the diffidence for a too large and thaumaturgic roles attributed to governments, institutions and policy choices accompanies in background the rigorous theoretical flows of the "Contribution to the Empirics of Economic Growth" - is very attractive and intriguing at the same time.

Let's see his crucial point on "Endogenous Technological Change", written in 1989 when he was still at the University of Chicago: "Growth - says Paul Romer in this model - is driven by technological change that arises from intentional investment decisions made by profit-maximizing agents. The distinguishing feature of the technology as an input is that it is neither a conventional good nor a public good; it is a nonrival, partially excludable good. Because of the nonconvexity introduced by a nonrival good,

26 OECD SOCIAL EXPENDITURE UPDATE, Directorate for Employment, Labour and Social Affairs, Paris, 2014, Annex 2

27 N. Gregory Mankiw, David Romer, David N. Wei , "A Contribution to the Empirics of Economic Growth", NBER Working Paper No. 3541, 1990

28 Paul M. Romer, Endogenous Technological Change The Journal of Political Economy, Vol. 98, No. 5, Part 2, 1990

price-taking competition cannot be supported. Instead, the equilibrium is one with monopolistic competition. The main conclusions are that the stock of human capital determines the rate of growth, that too little human capital is devoted to research in equilibrium, that integration into world markets will increase growth rates, and that having a large population is not sufficient to generate growth”.

Old and New will continue to compete in the long run but the Theory of Growth has already achieved the status of the robust theoretical guideline for a reasonable global governance.

Annex 1

2015 KOF Index of Globalization Annex 1

	country	Globalization Index		country	Economic Globalization		country	Social Globalization		country	Political Globalization
1.	Ireland	91.30	1.	Singapore	95.69	1.	Austria	91.54	1.	Italy	97.52
2.	Netherlands	91.24	2.	Ireland	92.59	2.	Singapore	90.83	2.	France	97.51
3.	Belgium	91.00	3.	Luxembourg	91.12	3.	Switzerland	90.80	3.	Austria	96.76
4.	Austria	90.24	4.	Netherlands	90.33	4.	Netherlands	90.53	4.	Belgium	96.51
5.	Singapore	87.49	5.	Malta	90.31	5.	Ireland	90.50	5.	Spain	96.17
6.	Sweden	86.59	6.	Belgium	87.99	6.	Belgium	90.05	6.	United Kingdom	95.93
7.	Denmark	86.30	7.	United Arab Emirates	87.77	7.	Cyprus	88.41	7.	Sweden	94.86
8.	Portugal	86.29	8.	Estonia	87.39	8.	Canada	88.36	8.	Brazil	94.23
9.	Switzerland	86.04	9.	Hungary	86.35	9.	Denmark	86.79	9.	Netherlands	93.52
10.	Finland	85.64	10.	Finland	84.77	10.	France	86.50	10.	Egypt, Arab Rep.	93.46
11.	Hungary	85.49	11.	Bahrain	84.71	11.	United Kingdom	85.84	11.	Switzerland	93.40
12.	Canada	85.03	12.	Czech Republic	84.59	12.	Portugal	84.77	12.	Portugal	93.39
13.	Czech Republic	84.10	13.	Mauritius	84.50	13.	Sweden	84.10	13.	Canada	93.39
14.	Spain	83.71	14.	Austria	84.16	14.	Norway	84.10	14.	Turkey	92.97
15.	Luxembourg	83.56	15.	Sweden	83.21	15.	Germany	83.75	15.	Argentina	92.83
16.	Cyprus	83.54	16.	Slovak Republic	83.20	16.	Slovak Republic	82.63	16.	United States	92.41
17.	Slovak Republic	83.52	17.	Portugal	82.73	17.	Finland	82.46	17.	Germany	92.17
18.	Norway	83.30	18.	Denmark	81.77	18.	Spain	82.36	18.	Norway	91.99
19.	United Kingdom	82.96	19.	Georgia	81.04	19.	Australia	82.11	19.	Denmark	91.84
20.	France	82.65	20.	New Zealand	80.92	20.	Czech Republic	81.90	20.	India	91.74
21.	Australia	81.64	21.	Cyprus	80.90	21.	United Arab Emirates	80.77	21.	Finland	91.42
22.	Italy	79.51	22.	Panama	80.36	22.	Kuwait	80.72	22.	Hungary	91.40
23.	Poland	79.43	23.	Latvia	80.31	23.	Hungary	80.59	23.	Greece	91.29
24.	Estonia	79.35	24.	Malaysia	80.30	24.	Greece	79.84	24.	Australia	91.03
25.	Greece	79.08	25.	Qatar	80.10	25.	Liechtenstein	79.57	25.	Nigeria	90.95
26.	Malaysia	79.05	26.	Trinidad and Tobago	79.18	26.	Luxembourg	79.39	26.	Ireland	90.67
27.	Germany	78.86	27.	Chile	77.94	27.	Poland	77.98	27.	Korea, Rep.	90.37
28.	New Zealand	78.29	28.	Oman	77.45	28.	United States	77.95	28.	Japan	90.10
29.	United Arab Emirates	76.71	29.	Lithuania	77.28	29.	Italy	77.79	29.	Romania	90.09
30.	Slovenia	76.34	30.	Mongolia	76.86	30.	Monaco	77.12	30.	Morocco	90.08
31.	Bulgaria	76.11	31.	Norway	76.17	31.	Israel	75.95	31.	Chile	89.48
32.	Croatia	75.69	32.	Spain	76.08	32.	Andorra	75.79	32.	Pakistan	89.38
33.	Malta	75.48	33.	Montenegro	76.00	33.	Malta	75.37	33.	Poland	89.30
34.	United States	74.81	34.	Iceland	75.82	34.	Malaysia	74.65	34.	Senegal	88.43
35.	Lithuania	72.71	35.	Switzerland	75.72	35.	Estonia	74.36	35.	Indonesia	87.57
36.	Israel	72.41	36.	Canada	75.48	36.	Saudi Arabia	74.18	36.	South Africa	87.53
37.	Romania	72.27	37.	Bulgaria	74.88	37.	New Zealand	73.59	37.	Jordan	86.63
38.	Qatar	72.25	38.	Slovenia	74.45	38.	San Marino	73.43	38.	Czech Republic	86.59
39.	Chile	71.08	39.	Australia	74.33	39.	Puerto Rico	73.06	39.	Peru	86.56
40.	Latvia	71.06	40.	Israel	73.89	40.	Slovenia	72.81	40.	Ukraine	86.01
41.	Thailand	71.02	41.	Poland	73.79	41.	Latvia	71.54	41.	Croatia	85.99
42.	Ukraine	69.50	42.	Peru	73.10	42.	Croatia	71.06	42.	Philippines	85.34
43.	Bahrain	69.34	43.	Croatia	73.07	43.	Bulgaria	71.00	43.	China	85.32
44.	Turkey	69.02	44.	Namibia	72.77	44.	Aruba	70.40	44.	Slovak Republic	85.22
45.	Kuwait	68.40	45.	Brunei Darussalam	72.06	45.	Guam	70.39	45.	Bulgaria	85.17
46.	Jordan	68.08	46.	Thailand	71.55	46.	New Caledonia	70.24	46.	Tunisia	85.16
47.	Iceland	67.96	47.	Swaziland	71.20	47.	Iceland	69.60	47.	Ghana	84.94
48.	Montenegro	67.27	48.	United Kingdom	70.53	48.	Bahamas, The	68.91	48.	Russian Federation	84.91
49.	Panama	66.84	49.	Barbados	70.26	49.	Bahrain	68.85	49.	Uruguay	84.33
50.	Bosnia and Herzegovina	66.18	50.	Kazakhstan	69.69	50.	Romania	68.06	50.	Guatemala	84.29
51.	Morocco	65.97	51.	Greece	69.43	51.	Macao, China	67.86	51.	Slovenia	84.06
52.	Mauritius	65.90	52.	Congo, Rep.	69.35	52.	Lithuania	67.17	52.	Malaysia	83.70
53.	Russian Federation	65.90	53.	Papua New Guinea	68.78	53.	Dominican Republic	66.69	53.	Ethiopia	83.62
54.	Japan	65.87	54.	Italy	68.25	54.	Japan	66.58	54.	Kenya	83.48
55.	Uruguay	65.68	55.	France	67.85	55.	Lebanon	66.14	55.	Algeria	82.04
56.	Serbia	65.49	56.	Ukraine	67.52	56.	Brunei Darussalam	65.76	56.	Thailand	81.99
57.	Brunei Darussalam	65.38	57.	Macedonia, FYR	67.16	57.	Turkey	65.23	57.	New Zealand	81.45
58.	Saudi Arabia	65.27	58.	Jamaica	66.88	58.	Serbia	65.05	58.	Ecuador	81.13
59.	Peru	65.09	59.	Jordan	66.01	59.	Russian Federation	64.80	59.	Colombia	80.38
60.	Lebanon	64.85	60.	Lebanon	65.72	60.	Virgin Islands (U.S.)	64.23	60.	Cyprus	80.16

country	Globalization Index	country	Economic Globalization	country	Social Globalization	country	Political Globalization
61. South Africa	64.82	61. Guyana	65.05	61. Costa Rica	63.40	61. El Salvador	79.65
62. Korea, Rep.	64.65	62. South Africa	65.04	62. Qatar	63.25	62. Luxembourg	79.16
63. Georgia	63.84	63. Germany	64.10	63. Thailand	62.93	63. Paraguay	78.35
64. Trinidad and Tobago	63.56	64. Armenia	64.09	64. Mauritius	62.77	64. Bosnia and Herzegovina	77.73
65. Moldova	62.45	65. Honduras	63.99	65. Bosnia and Herzegovina	62.67	65. Sri Lanka	77.47
66. Costa Rica	62.16	66. Uruguay	63.88	66. Belarus	61.58	66. Bolivia	76.72
67. Oman	61.58	67. Romania	63.76	67. Macedonia, FYR	60.90	67. Bangladesh	76.68
68. Dominican Republic	61.50	68. Vanuatu	63.72	68. Antigua and Barbuda	60.67	68. Burkina Faso	76.36
69. El Salvador	61.00	69. Cambodia	63.62	69. Ukraine	59.95	69. Mali	76.15
70. Guatemala	60.99	70. Costa Rica	62.67	70. Bermuda	59.44	70. Estonia	75.46
71. Mexico	60.77	71. Vietnam	62.64	71. Moldova	59.15	71. Qatar	74.44
72. Belarus	60.70	72. Mexico	62.14	72. Montenegro	58.85	72. Lithuania	74.40
73. Jamaica	60.64	73. Azerbaijan	62.10	73. Faeroe Islands	58.42	73. Benin	74.36
74. Macedonia, FYR	60.34	74. Albania	61.81	74. Panama	57.87	74. Cote d'Ivoire	74.24
75. China	60.15	75. Lesotho	61.52	75. Jordan	57.22	75. Niger	74.07
76. Kazakhstan	60.06	76. Bosnia and Herzegovina	61.49	76. Oman	57.02	76. Zambia	74.06
77. Brazil	59.74	77. Zambia	61.21	77. Georgia	56.90	77. Togo	73.42
78. Paraguay	59.29	78. Kuwait	60.78	78. Morocco	56.50	78. Guinea	73.27
79. Namibia	59.23	79. Serbia	60.73	79. Samoa	55.52	79. Jamaica	72.97
80. Colombia	59.17	80. Moldova	60.62	80. Trinidad and Tobago	55.25	80. Serbia	72.67
81. Honduras	58.68	81. Nicaragua	60.26	81. Seychelles	55.23	81. Cameroon	72.37
82. Tunisia	58.64	82. Nigeria	60.07	82. Barbados	54.99	82. Honduras	72.30
83. Armenia	57.76	83. El Salvador	59.83	83. Grenada	54.71	83. Mexico	72.24
84. Mongolia	57.57	84. Indonesia	59.65	84. Cayman Islands	54.53	84. Mongolia	72.17
85. Argentina	57.48	85. Angola	59.37	85. Uruguay	54.48	85. Singapore	71.37
86. Indonesia	57.39	86. Korea, Rep.	59.30	86. Fiji	53.73	86. Nepal	71.19
87. Azerbaijan	57.19	87. Mauritania	59.22	87. French Polynesia	53.71	87. Uganda	70.96
88. Philippines	57.13	88. Guatemala	59.03	88. West Bank and Gaza	53.46	88. Rwanda	70.77
89. Fiji	57.06	89. Timor-Leste	58.96	89. Palau	52.75	89. Fiji	70.45
90. Barbados	56.88	90. United States	58.77	90. China	52.61	90. Zimbabwe	70.36
91. Egypt, Arab Rep.	56.33	91. Morocco	58.41	91. St. Lucia	52.36	91. Kazakhstan	70.10
92. Ecuador	54.68	92. Dominican Republic	58.28	92. Argentina	52.07	92. Moldova	69.75
93. Ghana	54.32	93. Saudi Arabia	57.99	93. Korea, Rep.	51.95	93. Iran, Islamic Rep.	68.51
94. Bahamas, The	54.27	94. Yemen, Rep.	57.88	94. Chile	51.80	94. Armenia	68.03
95. Grenada	54.16	95. Paraguay	57.69	95. Mexico	51.52	95. Montenegro	67.43
96. Nicaragua	54.09	96. Kyrgyz Republic	57.43	96. Azerbaijan	50.61	96. Madagascar	67.04
97. Nigeria	54.05	97. Colombia	57.10	97. Venezuela, RB	49.92	97. Kyrgyz Republic	66.91
98. Senegal	54.00	98. Bolivia	57.03	98. Suriname	49.90	98. Yemen, Rep.	66.80
99. Kyrgyz Republic	53.91	99. Botswana	56.99	99. El Salvador	49.22	99. Belarus	66.67
100. Bolivia	53.76	100. Tunisia	56.66	100. South Africa	48.89	100. Sierra Leone	66.65
101. Gambia, The	52.96	101. Sierra Leone	56.40	101. St. Kitts and Nevis	47.97	101. Venezuela, RB	66.56
102. Albania	52.95	102. Belize	56.33	102. St. Vincent and the Grena	47.75	102. Djibouti	66.37
103. Samoa	52.90	103. Ghana	56.05	103. Paraguay	47.62	103. Mozambique	66.10
104. Swaziland	52.29	104. Gabon	55.94	104. Guatemala	46.73	104. Malawi	65.41
105. Venezuela, RB	51.83	105. Turkey	55.63	105. Belize	46.69	105. Israel	65.25
106. Sri Lanka	51.56	106. Belarus	55.43	106. Ecuador	46.48	106. Mauritania	65.22
107. Pakistan	50.99	107. Gambia, The	55.24	107. Colombia	46.46	107. Namibia	64.83
108. Zambia	50.86	108. Philippines	54.57	108. Jamaica	46.14	108. Gambia, The	64.66
109. India	50.77	109. Suriname	54.53	109. Nicaragua	45.43	109. Cuba	64.04
110. Antigua and Barbuda	50.30	110. Russian Federation	53.27	110. Maldives	45.20	110. Congo, Dem. Rep.	63.57
111. Guyana	50.11	111. Cote d'Ivoire	51.61	111. Armenia	44.61	111. Tajikistan	63.13
112. Djibouti	50.00	112. Uganda	51.40	112. Greenland	44.56	112. Saudi Arabia	62.44
113. Cote d'Ivoire	49.69	113. Senegal	51.04	113. Swaziland	44.41	113. Chad	61.97
114. Zimbabwe	49.61	114. Brazil	50.96	114. Brazil	44.24	114. Papua New Guinea	61.79
115. Belize	49.54	115. Fiji	50.85	115. Dominica	44.20	115. Lebanon	61.78
116. Togo	49.47	116. Cape Verde	50.49	116. Honduras	44.19	116. Cambodia	61.67
117. Algeria	49.36	117. Togo	50.32	117. Kazakhstan	43.92	117. Panama	61.17
118. Papua New Guinea	49.18	118. Zimbabwe	50.07	118. Sri Lanka	42.97	118. Kuwait	61.09
119. Cambodia	49.17	119. Mozambique	49.94	119. Gambia, The	42.69	119. Central African Republic	61.04
120. Vietnam	49.13	120. China	49.80	120. Peru	42.60	120. Burundi	61.00
121. Gabon	49.01	121. Myanmar	49.74	121. Egypt, Arab Rep.	42.58	121. Liberia	60.94
122. Seychelles	48.66	122. Mali	49.67	122. Albania	42.56	122. Tanzania	60.05
123. Suriname	48.49	123. Haiti	49.31	123. Namibia	42.42	123. Azerbaijan	59.92
124. Yemen, Rep.	47.82	124. Congo, Dem. Rep.	49.07	124. Tunisia	42.17	124. Costa Rica	59.65
125. Palau	47.59	125. Tajikistan	48.48	125. Kyrgyz Republic	41.56	125. Dominican Republic	58.43
126. Lesotho	47.41	126. Japan	47.57	126. Cape Verde	41.24	126. Nicaragua	58.10
127. Mauritania	47.10	127. Syrian Arab Republic	45.98	127. Uzbekistan	40.46	127. Latvia	57.60
128. St. Lucia	46.75	128. Malawi	45.50	128. Gabon	40.41	128. Iraq	55.93
129. Botswana	46.13	129. Ecuador	44.09	129. Philippines	40.04	129. Vietnam	55.78
130. Kenya	46.04	130. Egypt, Arab Rep.	43.83	130. Syrian Arab Republic	40.00	130. Albania	55.75
131. Mozambique	45.91	131. Rwanda	43.72	131. Botswana	39.47	131. Brunei Darussalam	55.62
132. Mali	45.85	132. Guinea	43.54	132. Guyana	38.94	132. United Arab Emirates	55.60
133. Uganda	45.81	133. Bahamas, The	43.39	133. Djibouti	38.67	133. Lesotho	55.28
134. Sierra Leone	45.75	134. Venezuela, RB	43.15	134. Turkmenistan	37.69	134. Sudan	55.20
135. Syrian Arab Republic	45.34	135. India	42.84	135. Libya	37.10	135. Malta	55.17
136. Cuba	45.15	136. Sri Lanka	41.78	136. Pakistan	36.91	136. Iceland	54.78
137. Tajikistan	45.02	137. Madagascar	41.35	137. Tonga	35.71	137. Trinidad and Tobago	54.03
138. Congo, Rep.	45.00	138. Cameroon	40.83	138. Algeria	35.21	138. Grenada	53.36
139. Cape Verde	43.76	139. Algeria	40.49	139. Zimbabwe	34.82	139. Libya	52.59
140. Guinea	43.75	140. Kenya	39.16	140. Bolivia	34.76	140. Syrian Arab Republic	52.20
141. Rwanda	43.68	141. Tanzania	39.10	141. Indonesia	34.36	141. Gabon	51.88
142. Burkina Faso	43.55	142. Pakistan	37.91	142. Vanuatu	33.52	142. Georgia	50.15
143. Vanuatu	43.52	143. Argentina	37.52	143. Bhutan	33.51	143. Macedonia, FYR	50.09
144. Aruba	43.47	144. Burkina Faso	37.23	144. Micronesia, Fed. Sts.	33.43	144. Afghanistan	49.28
145. Malawi	43.45	145. Chad	36.58	145. Iran, Islamic Rep.	33.29	145. Samoa	49.11
146. Libya	43.44	146. Niger	36.09	146. Senegal	33.02	146. Bahrain	48.85

country	Globalization Index
147. Cameroon	43.30
148. New Caledonia	42.59
149. Uzbekistan	42.34
150. Macao, China	42.08
151. Angola	42.05
152. Bangladesh	41.92
153. Niger	41.61
154. Iran, Islamic Rep.	41.38
155. Dominica	41.15
156. Benin	40.90
157. Madagascar	40.76
158. Haiti	40.70
159. St. Vincent and the Grena	40.69
160. Timor-Leste	40.42
161. Congo, Dem. Rep.	40.35
162. Iraq	40.22
163. St. Kitts and Nevis	39.55
164. Liberia	39.55
165. Nepal	38.54
166. Maldives	38.07
167. Turkmenistan	37.96
168. Chad	37.62
169. Ethiopia	37.43
170. Tanzania	37.17
171. Bermuda	36.77
172. Faeroe Islands	35.83
173. Central African Republic	34.95
174. West Bank and Gaza	34.46
175. Cayman Islands	33.53
176. Guinea-Bissau	33.41
177. Myanmar	33.01
178. Sao Tome and Principe	32.86
179. French Polynesia	32.82
180. Burundi	32.26
181. Tonga	31.89
182. Sudan	31.54
183. Comoros	31.15
184. Afghanistan	30.62
185. Bhutan	29.30
186. Equatorial Guinea	27.49
187. Eritrea	27.13
188. Lao PDR	26.91
189. Kiribati	26.00
190. Somalia	25.39
191. Solomon Islands	25.26
192. American Samoa	.
193. Andorra	.
194. Channel Islands	.
195. Greenland	.
196. Guam	.
197. Isle of Man	.
198. Korea, Dem. Rep.	.
199. Liechtenstein	.
200. Marshall Islands	.
201. Micronesia, Fed. Sts.	.
202. Monaco	.
203. Netherlands Antilles	.
204. Northern Mariana Islands	.
205. Puerto Rico	.
206. San Marino	.
207. Virgin Islands (U.S.)	.

country	Economic Globalization
147. Bangladesh	35.28
148. Benin	34.66
149. Central African Republic	33.90
150. Guinea-Bissau	32.60
151. Iran, Islamic Rep.	30.18
152. Sudan	28.05
153. Nepal	26.77
154. Ethiopia	25.99
155. Burundi	21.79
156. Afghanistan	
157. American Samoa	
158. Andorra	
159. Antigua and Barbuda	
160. Aruba	
161. Bermuda	
162. Bhutan	
163. Cayman Islands	
164. Channel Islands	
165. Comoros	
166. Cuba	
167. Djibouti	
168. Dominica	
169. Equatorial Guinea	
170. Eritrea	
171. Faeroe Islands	
172. French Polynesia	
173. Greenland	
174. Grenada	
175. Guam	
176. Iraq	
177. Isle of Man	
178. Kiribati	
179. Korea, Dem. Rep.	
180. Lao PDR	
181. Liberia	
182. Libya	
183. Liechtenstein	
184. Macao, China	
185. Maldives	
186. Marshall Islands	
187. Micronesia, Fed. Sts.	
188. Monaco	
189. Netherlands Antilles	
190. New Caledonia	
191. Northern Mariana Islands	
192. Palau	
193. Puerto Rico	
194. Samoa	
195. San Marino	
196. Sao Tome and Principe	
197. Seychelles	
198. Solomon Islands	
199. Somalia	
200. St. Kitts and Nevis	
201. St. Lucia	
202. St. Vincent and the Grenadines	
203. Tonga	
204. Turkmenistan	
205. Uzbekistan	
206. Virgin Islands (U.S.)	
207. West Bank and Gaza	

country	Social Globalization
147. Sao Tome and Principe	32.49
148. Togo	32.10
149. Cuba	32.08
150. Vietnam	31.64
151. Ghana	31.48
152. Cote d'Ivoire	30.87
153. India	29.98
154. Kiribati	29.41
155. Iraq	29.34
156. Tajikistan	29.19
157. Mongolia	29.05
158. Lesotho	28.49
159. Comoros	28.40
160. Mozambique	28.11
161. Haiti	27.27
162. Nepal	27.17
163. Burkina Faso	26.87
164. Cambodia	26.74
165. Kenya	26.70
166. Malawi	26.29
167. Guinea-Bissau	25.73
168. Cameroon	25.54
169. Yemen, Rep.	25.09
170. Zambia	24.93
171. Rwanda	24.89
172. Liberia	24.74
173. Niger	24.43
174. Eritrea	24.33
175. Bangladesh	24.21
176. Solomon Islands	24.21
177. Congo, Rep.	23.89
178. Equatorial Guinea	23.69
179. Benin	23.69
180. Guinea	23.53
181. Uganda	23.06
182. Mauritania	23.00
183. Somalia	22.93
184. Nigeria	22.77
185. Burundi	22.37
186. Madagascar	22.03
187. Lao PDR	22.02
188. Chad	21.76
189. Papua New Guinea	21.75
190. Angola	21.72
191. Mali	21.24
192. Sierra Leone	21.12
193. Tanzania	19.51
194. Timor-Leste	18.68
195. Sudan	18.51
196. Central African Republic	17.91
197. Afghanistan	17.71
198. Ethiopia	16.38
199. Congo, Dem. Rep.	15.98
200. Myanmar	15.56
201. American Samoa	.
202. Channel Islands	.
203. Isle of Man	.
204. Korea, Dem. Rep.	.
205. Marshall Islands	.
206. Netherlands Antilles	.
207. Northern Mariana Islands	.

country	Political Globalization
147. Haiti	48.23
148. Bahamas, The	48.10
149. Angola	47.56
150. Oman	46.30
151. Timor-Leste	46.24
152. Guyana	45.64
153. Guinea-Bissau	45.63
154. Uzbekistan	45.05
155. Mauritius	44.79
156. Belize	44.30
157. Congo, Rep.	41.92
158. Barbados	41.14
159. Botswana	40.79
160. Palau	40.14
161. Seychelles	39.16
162. St. Lucia	38.64
163. Turkmenistan	38.36
164. Suriname	38.14
165. Cape Verde	38.11
166. Swaziland	37.61
167. Dominica	36.73
168. Antigua and Barbuda	35.31
169. San Marino	35.16
170. Myanmar	35.14
171. Comoros	35.14
172. Lao PDR	33.97
173. Sao Tome and Principe	33.39
174. Andorra	33.35
175. Equatorial Guinea	32.98
176. Monaco	32.90
177. Eritrea	31.17
178. St. Vincent and the Grena	30.49
179. Vanuatu	30.12
180. Somalia	28.95
181. Liechtenstein	28.94
182. Maldives	27.75
183. St. Kitts and Nevis	27.40
184. Korea, Dem. Rep.	26.94
185. Solomon Islands	26.77
186. Tonga	26.37
187. Bhutan	23.20
188. American Samoa	22.77
189. Kiribati	21.06
190. Marshall Islands	18.98
191. Micronesia, Fed. Sts.	17.97
192. West Bank and Gaza	6.99
193. Netherlands Antilles	5.90
194. Macao, China	4.81
195. Aruba	4.54
196. Bermuda	3.99
197. Cayman Islands	3.18
198. Faeroe Islands	3.18
199. Puerto Rico	3.18
200. French Polynesia	2.63
201. Greenland	2.63
202. Guam	2.63
203. New Caledonia	2.63
204. Virgin Islands (U.S.)	2.09
205. Northern Mariana Islands	1.54
206. Isle of Man	1.27
207. Channel Islands	1.00

*Note: Rankings are based on raw data for the year 2012.

Source:

Dreher, Axel, 2006, Does Globalization Affect Growth? Empirical Evidence from a new Index *Applied Economics* 38, 10: 1091-1110.

Updated in:

Dreher, Axel; Noel Gaston and Pim Martens, 2008, *Measuring Globalization - Gauging its Consequence*, New York: Springer.

Annex 2

SOCIAL EXPENDITURE UPDATE

Social spending is falling in some countries, but in many others it remains at historically high levels

Insights from the OECD Social Expenditure database (SOCX), November 2014

OECD
Directorate for Employment, Labour and Social Affairs

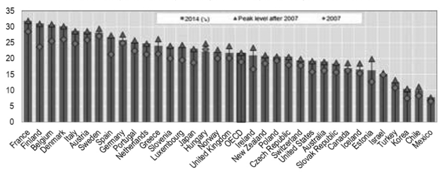
New OECD data show that in recent years Canada, Estonia, Germany, Greece, Hungary, Iceland, Ireland and the United Kingdom have experienced substantial declines in social spending as a percent of GDP, but in most countries social spending remains at historically high levels. Public spending in some emerging economies is below the OECD average, lowest in India and Indonesia but highest in Brazil where – as in OECD countries – pensions and health expenditure are important areas of social spending. New SOCX data also shows that income-testing in social protection systems is much more prevalent in Anglophone and non-European OECD countries than in continental Europe. Finally, when considering the role of private social benefits and the impact of tax systems, social spending levels become more similar across OECD countries, and while France remains the biggest social spender, the United States moves up the rankings to second place.

Public social expenditure is worth more than 20% of GDP on average across the OECD

In 2014, OECD countries devote more than one-fifth of their economic resources to public social support. Public social spending-to-GDP ratios are highest at over 30% of GDP in Denmark, Belgium, Finland and France (highest at almost 32% of GDP), with Italy, Austria, Sweden, Spain and Germany also devoting more than a quarter of their GDP to public social spending (Figure 1). At the other end of the spectrum are non-European countries as Turkey, Korea, Chile and Mexico which spend less than 15% of GDP on social support. Spending levels in the latter three countries are now similar to what they were in Europe in the 1960s. Indeed, social protection systems in many European countries, Japan and the United States have developed over 50 years into the comprehensive state they are in now (Figure 2).

1 Public social spending is worth 22% of GDP on average across the OECD

Public social expenditure as a percent of GDP, 2007, peak level after 2007, and 2014



Note: Throughout this document, (↗) (or ↘) in the legend relates to the variable for which countries are ranked from left to right in increasing (or decreasing) order.

"Peak level after 2007" refers to the highest level social spending-to-GDP-ratio over the period 2007-2014, i.e. to 2009 except for the United States (2010), Japan and Slovenia (2011), Greece and Mexico (2012), Belgium, Denmark, France, Italy, Poland, Portugal, the Slovak Republic, Spain, Switzerland(2013), Australia, the Czech Republic, Finland, Korea and the Netherlands (2014).

For detail on the underlying methodology regarding estimates for recent years, and the detailed social expenditure programme data, see the box "What is in SOCX?" below. Data for the most recent year for Japan concern 2011, 2012 for Mexico and 2013 for Chile, Israel, New Zealand and Turkey.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law. This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

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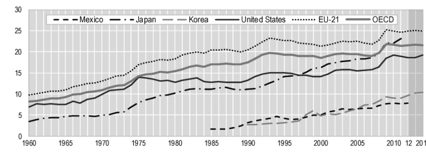
2 Comprehensive social welfare systems were developed over a long period of time

Public social expenditure as a percent of GDP in 1960-2014



Social spending is coming down in some countries, but in many countries it remains high.

In an economic downturn, social spending-to-GDP ratios usually increase as public spending goes up to address greater need for social support, while simultaneously economic growth falters (GDP as in the denominator). At the onset of the Great Recession both these features contributed to a rapid increase in public social spending-to-GDP ratios on average across the OECD from 18.9% in 2007 to 21.9% in 2009, and estimates for recent years suggest it has declined a little since: it was 21.6% of GDP in 2014.

However, while in most countries social spending has not fallen much in recent years, in some OECD countries there has been a significant decline since spending peaked in 2009. Since then spending-to-GDP ratios declined by 1.5 to 2.5 percentage points in Canada, Germany, Hungary, Iceland, Ireland, the United Kingdom, and by 3.5% of GDP in Estonia. The most rapid decline was recorded for Greece, where the social spending-to-GDP ratio fell by almost 2 percentage points since peak in 2012 (Figure 1).

When comparing current social spending levels with pre-crisis levels in 2007, public social-spending-to-GDP ratios are more than 4 percentage points higher in 2014 in Belgium, Denmark, Ireland, Japan (2011), Luxembourg, Spain and, particularly, in Finland. Only in Hungary are public social-spending-to-GDP ratios now lower (by almost 1 percentage point) than in 2007, while Canada, Germany and Israel have public social spending-to-GDP ratios that are within 1 percentage point of 2007 levels.

What is in SOCX?

The new release of the OECD Social Expenditure database (SOCX) includes detailed social expenditure programme data for 1980-2011/12 for 34 OECD countries. SOCX presents public and private benefits with a social purpose grouped along the following policy areas: old age, survivors, incapacity-related benefits, health, family, active labour market programmes, unemployment, housing and other social policy areas. SOCX includes public spending on early childhood education and care up to age 6, but SOCX does not include public spending on education beyond that age. In addition to the detailed information available for 1980-2011 (including 2012 for Australia, Canada, Korea, New Zealand, and the United States; and 2013 for Chile, Israel and Turkey), SOCX includes indicators on aggregate public social spending for 2012-2013 based on national aggregates and estimates for 2014. The 2014 data were estimated on the basis of national sources for non-European OECD countries, and/or OECD (2014), *OECD Economic Outlook 95 A*, as in May 2014 and EC DG ECFIN (2014), the European Union's Annual Macro-economic database (AMECO) as in May 2014. COFOG data have been used in the case of Switzerland.

SOCX also includes indicators on net (after tax) social expenditure for 33 countries for 2011 (information on taxation of benefits often does not become available until two years after the fiscal year). Time series for the majority of countries are available since 2001. Relevant fiscal detail involves direct taxation of benefit income, indirect taxation of consumption out-of-benefit income, and tax breaks with a social purpose.

Data for 24 European countries were provided by Eurostat as based on the information in their European system of integrated social protection (ESSPROS), while information for other countries is provided by national correspondents. Data on health and active labour market programmes were taken from OECD Health Data and the OECD/Eurostat database on Labour Market Policies. Information on the direct taxation of benefit income and tax breaks with a social purpose was provided by the delegates to the Committee on Fiscal Affair's Working Party No. 2 on Tax Policy Analysis and Tax Statistics.

It should be borne in mind that the quality of data on the effect of tax systems (frequently estimates based on tax models), and private and social spending and spending by local government (because of under-reporting), is not as high as the quality of information on budgetary allocations towards social purposes. For more detail regarding the sources and methodology underlying SOCX and its indicators on social spending, see Adema, W., P. Fron and M. Ladaique (2011), "Is the European Welfare State Really More Expensive? Indicators on Social Spending, 1980-2012 and a Manual to the OECD Social Expenditure database (SOCX)", *OECD Social, Employment and Migration Working Paper* No. 124 (www.oecd.org/social/expenditure.htm).

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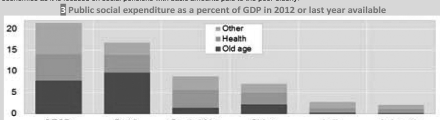
Public social expenditure in Brazil, China, India, Indonesia and South Africa

Amongst emerging economies, such as Brazil, China, India, Indonesia and South Africa there is huge variation in type and levels of social spending. Public social spending is closest to the OECD average in Brazil at just over 15% of GDP. In Brazil, public spending on pension benefits amounts to almost 10% of GDP (which is a conservative estimate, see the note to Figure 3), compared to 8% of GDP on average across the OECD. This is all the more poignant since Brazil is a relatively young country with eight persons of working age to one senior citizen, twice as many as in the OECD on average. Compared to public spending on pensions, spending on other social programmes, as for example, "Bolsa Familia" which supports very low-income families with children is relatively limit.

In 2009 public social spending in China amounted to around 7% of GDP, comparable to average social spending in the Asia/Pacific region (OECD, 2014, *Society at a Glance, Asia/Pacific*). Spending on old-age cash benefits amounted to about 2.5% of GDP with social assistance payments making up just over half a percent of GDP. By comparison public social spending in India (with spending on labour market programmes at 0.6% of GDP) and Indonesia is much lower. However, the available data on public social spending is likely to underestimate public social effort as outlays by state and other local governments in these populous countries is under-reported.

Finally, public spending in South Africa amounted to around 8.7% of GDP in 2012, of which about half is public expenditure on health. "Other spending" includes important support programmes for the working age population, such as the "Community Work Programme", the "Extended Public Works Programme" and the "Child Support Grant". Pension spending is low in comparison with some other emerging economies as it is focused on social pensions with basic amounts paid to the poor elderly.

3 Public social expenditure as a percent of GDP in 2012 or last year available



Note: Public spending on heath was taken from the World Health Organisation (WHO), Global Health Expenditure database (http://apps.who.int/nha/database): other sources used were cleaned for health items where necessary to avoid double counting. Data for *Brazil* refer to federal social expenditure as taken from Castro, J. de, J. Ribeiro, J. Chaves and B Duarte (2012), *Gasto Social Federal: prioridade macroeconômica no período 1995-2010*, Brasília, September. These data do not include spending by local authorities, including on former State and municipal civil servants. Benefits for federal civil servants (mostly pensions) amounted to 2.3% of GDP in 2009 covering 450 000 retired civil servants, at the time there were 535 000 retired local and state civil servants (Ministério da Previdência Social, 2009, *Overview of Social Welfare in Brazil*, 2nd Edition, January). Hence, public spending on pensions for former State and local government employees – not included in the figure – could well amount to around 2.5% of GDP. Data for *China*, *India* and *Indonesia* were taken from the Asian Development Bank Social Protection Index database (http://spi.adb.org/spidmz/index.jsp); and, data for *South Africa* were taken from the National Treasury of the Republic of South Africa (2014), National Budget 2014, estimates of national expenditure.

Pensions and health are the largest areas of social spending

Countries on average spent more on cash benefits (12.3% of GDP) than on social and health services (8.6% of GDP), but Nordic countries, Canada, the Netherlands, New Zealand and the United Kingdom had a more equal balance in spending on cash and in-kind benefits. Low-spending countries like Mexico and Korea have a greater focus on services in social support (Figure 3).

Cash income support to the working age population accounts for 4.4% GDP on average across the OECD (Figure 3), of which 1% GDP towards unemployment benefits, 1.8% on disability/sickness benefits, 1.3% on family cash benefits and another 0.4% on other social policy cash supports.

Public expenditure on health is another important social policy area (Figure 3). On average across the OECD, public expenditure on health has increased from 4% in 1980 to 6% of GDP. This increase was related to various factors including rising relative health prices and the cost of medical technology (OECD, 2014, *Health Statistics 2014*), and to a lesser extent the increase in the proportion of the elderly population.

In terms of spending, public pension payments constitute the largest social policy area with spending at just below 8% of GDP. There is great variety across countries in pension spending which to some extent is related to differences in population structures. For example, public spending on pensions in Italy accounted for 15.8% of GDP while this was only 1.8% of GDP in Mexico, but Mexico is a relative young country with nine persons of working age per senior citizen, three times as many as in Italy. (OECD, 2014, *Society at a Glance*). At the same time, Italian and Japanese populations have a similar age profile, but public pension spending in Italy is 5.6 percentage points of GDP higher than in Japan: the nature of pension systems also plays a key role in determining pension spending.

Since 1980 public spending on pensions has increased by 2 percentage points of GDP on average across the OECD, and demographic change continues to exert upward pressure on pension expenditure. *Pensions at a Glance* (OECD, 2013) and *Pensions Outlook*

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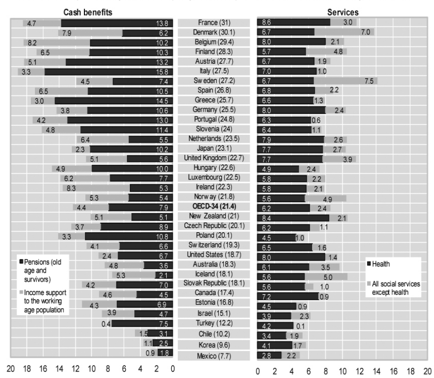
4 Pensions and health are the main areas of public social spending

Public social expenditure by broad social policy area, as a percent of GDP, in 2012 or latest year available[1]



Note: Countries are ranked by decreasing order of public social expenditure as a percent of GDP. Spending on active labour market programs (ALMPs) cannot be split by cash/services breakdown; they are however included in the total public spending (shown in brackets). Income support to the working-age population refers to spending on the following SOCX categories: incapacity benefits, family cash benefits, unemployment and other social policy areas categories. Data for Australia, Canada, Chile, Israel, Korea, New Zealand and the United States refer to 2012; other data reflect 2011.

(OECD, 2012) show that in many countries pension reforms have improved the financial sustainability of pensions systems through, e.g. less generous indexation procedures for benefit payments, a greater reliance on private and/or defined contribution schemes, or higher retirement ages. For example, the gradual increase in the minimum age for "New Zealand Superannuation" from 60 to 65 over the 1992-2001 period contributed to a decline in public pension spending in New Zealand from 6.8% to 4.6% of GDP over the 1992-2001 period.

Are social transfers made to richer or poorer households?

Social cash benefits can be made for different reasons to different households, including because people are retired, disabled, unemployed, or otherwise without source of income, or to help out with the cost of children or support households when they are on leave taking care of very young children or sick and/or elderly dependents. Benefit receipt can thus depend on different contingencies; it does not necessarily mean the receiving household is poor.

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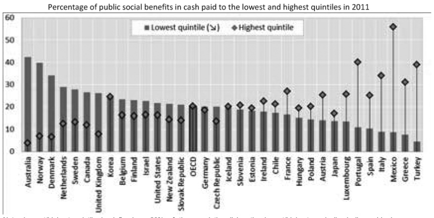
5 The share of social benefits going to low income households varies considerably across OECD

Percentage of public social benefits in cash paid to the lowest and highest quintiles in 2011



Note: Lowest/highest quintile is defined as 20% of the population living the lowest/highest equivalised disposable income. *Source:* OECD Income Distribution database via http://oe.cd/idd.

Figure 5 shows the share of cash social benefits paid to the lowest quintile and the highest income quintiles in OECD countries. Clearly, there is considerable variation across OECD countries in the extent to which social transfers are made to low and high-income households. The share of cash benefits paid to household in the bottom income exceeds 25% of all cash benefits in the United Kingdom, Canada, the Netherlands and is highest in Norway and Australia at 40%, compared to around 10% in Mediterranean countries and 5% in Turkey. By contrast, in these latter countries social transfers often go to richer households, because these benefit payments are often related to a work history in the formal sector, and often concern pension payments to retired workers. Earnings related social insurance payments also underlie substantial cash transfers to the top income quintile in Austria, France and Luxembourg.

Income-testing in cash benefits

Getting a relatively high level of spending on cash benefits to lower-income households can be related to high levels of overall expenditure on cash benefits and/or a high degree of targeting within social programmes (Adema et al. 2014). The provision of social support can be made directly contingent on household income and/or means (e.g. assets), and, governments are increasingly looking at income-testing as a tool to ensure delivery of social support to the least well-off in the face of budgetary pressures.

For the first time this year, SOCX collected comprehensive information on whether social expenditure programmes were income and/or means-tested or not, with "income-tested benefits" defined as those benefits that aimed to prevent household income to fall below a certain level and for which eligibility and entitlements are conditional on the recipient's current income, and assets in the case of means-testing.

Figure 6, Panel A shows that income-testing is most prevalent in non-European and/or Anglophone countries, and plays a much more limited role in continental European social protection systems. For example, in Australia, social spending through income-tested programmes amounts to 6.5% of GDP or almost 80% of all public social cash spending that is made. By contrast, most cash benefit payments in continental Europe are not subject to an income and/or means-test and income-tested support concerns less than 2% of GDP except in Spain, where spending income-tested unemployment benefits is now 2.5 times as high as it was before the crisis.

In most countries, income-tested benefits mainly concern income support of the working-age population (Figure 6, Panel B). However, in Australia, Iceland, Canada, Greece, Israel, Japan, Korea, Norway and Spain at least 40% of income-tested payments go to old-age and survivor pension recipients.

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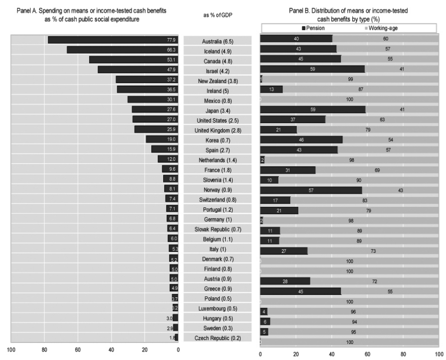
6 Income testing of social support plays a limited role in continental Europe

Public spending on income and means-test benefits as a percent of public social spending on cash benefits (and GDP in brackets), 2012 or latest year available



Note: The following cash income-tested spending items are included: spending on "other contingencies - other social policy areas" as in the OECD Social Expenditure database (SOCX), income-tested spending on the unemployed (e.g. unemployment assistance payments for Germany), income-tested support payments to elderly and disabled (e.g. Belgium and the UK), other income tested payments (survivor payments, family cash transfers) but do not include spending on ALMPs, housing or income-tested medical support.

In the United States public social spending is relatively low, but total social spending is the second highest in the world

Thus far, the discussion focussed on public social spending on cash benefits and social and health services, and in the United States and other non-European OECD countries such spending is lower than in most European countries. However, a focus on public budgets misses two important features that affect social spending totals and international comparisons of social expenditure: 1) private social expenditure and 2) the impact of tax systems.

Private social expenditure

Private social expenditure concerns social benefits delivered through the private sector (not transfers between individuals) which involve an element of compulsion and/or inter-personal redistribution, for example through the pooling of contributions and risk sharing in terms of health and longevity. Pensions constitute an important part of both public and private social expenditure. Private pension payments can derive from mandatory and voluntary employer-based (sometimes occupational and industry wide) programmes (e.g. in the Netherlands or the United Kingdom), or tax-supported individual pension plans (e.g., individual retirement accounts in the United States). In 2011, private pension benefit payments were around 3% of GDP in Canada, Iceland,

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and Japan, around 5% of GDP in Denmark, the Netherlands, the United Kingdom and the United States, and highest in Switzerland at around 6% of GDP.

Private social benefits are much less likely to concern cash transfers to the working age population. In terms of spending, sickness and disability-related benefits were most important in Austria, France, Germany, the Netherlands, Norway and Switzerland where they amounted to 1% of GDP and were around 2% of GDP in Iceland. Private social spending also includes social services and benefits provided by non-government organisations (NGOs) to those most in need, but such outlays are often not centrally recorded, and relevant spending is under-reported in SOCX.

Individual out-of-pocket spending on health services is not regarded as social spending, but many private health insurance plans across the OECD involve pooling of contributions and risk sharing across the insured population. On average across the OECD, such private social health expenditure amounted to 0.6% of GDP in 2012. It was 1.5% of GDP in France and 2.5% of GDP in Chile, but across OECD countries private health insurance is most important in the United States where it amounted to 5.7% of GDP. Taken together with public spending on health amounting to 8% of GDP in the same year, and the value of revenue foregone on tax breaks on health premiums (just over 0.5% of GDP), total social health spending in the United States amounted to over 14% of GDP - 4 percentage points higher than in France which is the second biggest "health spender" among OECD countries.

In all, in 2011/12 private social spending was on average 2.6% of GDP across the OECD. Private social spending plays the most important role in the United States where it amounted to almost 11% of GDP, while it ranged from 4 to 7.5% of GDP in Chile and Canada, 5 to 6 % in Denmark, Iceland and the United Kingdom and over 7% in the Netherlands and Switzerland.

The impact of tax systems

Tax systems can affect social spending in three different ways:

1. Governments can levy direct income tax and social security contributions on cash transfers to beneficiaries. In 2011 the Danish Government clawed back more than 5% of public social spending through direct taxation of benefit income, and tax levied over benefit payments also exceeds 2.5% of GDP in Austria, Italy, Finland, the Netherlands and Sweden.
2. Government also levy indirect taxation on consumption out-of-benefit income and on average across the OECD this was worth 2% of GDP in 2011. Tax rates on consumption are often considerably lower in non-European OECD countries where tax revenue on consumption out-of-benefit income often amounts to less than 1% of GDP. In Europe, relevant tax revenue ranges from 1.8 to 3% of GDP.
3. Governments can also use so-called "tax breaks with a social purpose" (TBSP) to directly provide social support or with the aim to stimulate the private provision of social support.
   a) TBSPs which directly provide support to households are similar to cash benefits and often concern support for families with children, e.g. child tax allowances or child tax credits. Such TBSPs amounted to around 1`% of GDP in the Czech Republic, France, Germany, Portugal and Hungary - which introduced a Child Tax Credit in 2011.
   b) TBSPs to stimulate provision of "current" private social benefits is largest in the United States at around 1.4% of GDP, of which almost 80% concerns exclusion of employer contributions of medical insurance contributions.

Accounting for these features, results in a "net tax effect" (Figure 7). The value of benefit income clawed back through direct and indirect taxation exceeds the value of TBSPs in almost all countries, particularly in Europe, and the claw-back is 5% of GDP or more in Austria, Finland, Luxembourg, the Netherlands, Norway, Sweden, and is highest at 8-9% of GDP in Denmark. In non-European OECD countries, the overall tax claw-back over social spending is much smaller and negligible in Korea and Mexico, and in the United States the value of TBSPs and the tax claw-back over benefit income is broadly similar.

Cross-country rankings

Putting together the information on gross public and private social spending and the impact of tax systems leads to an indicator on net total social expenditure (Figure 7). This indicator shows greater similarity in spending levels across countries and changes in the ranking among countries.

Because of the large "net tax effect" Austria, Luxembourg and Scandinavian countries drop down the rankings (Figure 7). The "net tax effect" is also considerable in Iceland, the United Kingdom and the Netherlands, but the large role of private social benefits ensures that in spending terms these countries move up the rankings when considering net total social expenditure.

The combination of small "net tax effects" and considerable private social spending ensures that Australia, Canada, Japan and in particular the United States move up the international social spending ladder. As private social spending (including health) is so much larger in the United States compared with other countries, its inclusion moves the United States from 23rd in the ranking of the gross public social spending to 2nd place when comparing net total social spending across countries.

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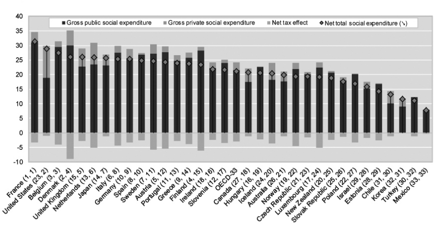
7 From gross public to total net social spending, as a percent of GDP at market prices, 2011



Note: The figures in brackets refers to the ranking of countries in term of gross public social expenditure from number 1 being the highest spender to the lowest 33: i.e. the United States ranks 23rd in OECD in term of gross public social expenditure and 2nd in term of net total social expenditure. 2011 data on TBSPs for New Zealand were estimated using available information for 2009; indicators on direct taxation of benefit income and TBSPs for Poland were also estimated on basis of available information for 2009. The "Net tax effect" includes direct taxes and social contributions, indirect taxes and net tax breaks for social purpose similar to cash benefits (TBSPs). TBSPs also include favourable tax treatment of "current" private social benefits (e.g. donations to charities or exemptions of private health insurance contributions) and favourable treatment of pension saving that "ultimately" benefits households (e.g., favourable tax treatment of private funds). The value of the TBSPs toward "current" private benefits is not included in this figure, as it is equivalent to financing of private social benefits, and thus has to be excluded to avoid double counting when calculating total net (public and private) social spending. For methodological reasons there is no comprehensive cross-nationally comparable dataset on the value of TBSPs for pensions.
Because of the complexities with calculating the value of tax reliefs for pension that are given at various stages (e.g. including tax exemptions for contributions to private pensions and tax relief for investment income of capitalised pension funds) there is no fully comparable cross-national data set available on TBSPs for pensions. Hence, available data are not included in the overall calculation of net total social spending.

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More information:

Adema, W., P. Fron and M. Ladaique (2011), "Is the European Welfare State Really More Expensive?: Indicators on Social Spending, 1980-2012 and a Manual to the OECD Social Expenditure Database (SOCX)", *OECD Social, Employment and Migration Working Papers*, No. 124, OECD Publishing. http://dx.doi.org/10.1787/5kg2d2d4pbf0-en.
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OECD Income Distribution database (http://oe.cd/idd).

Source:

Please source this document as: OECD (2014), " Social Expenditure Update - Social spending is falling in some countries, but in many others it remains at historically high levels".

This document as well as all figures and underlying data can be downloaded via www.oecd.org/social/expenditure.htm. En français : www.oecd.org/fr/social/depenses.htm .

SOCX is available via the OECD statistical browser OECD.Stat. To facilitate international comparisons, this information is related to gross domestic product, gross national income, total government expenditure, and in purchasing power parities per head.

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Annex 3

Electoral Rules and Corruption

Torsten Persson. Guido Tabellini. Francesco Trebbi[1]

Is corruption systematically related to electoral rules? A number of studies have tried to uncover economic and social determinants of corruption but, as far as we know, nobody has yet empirically investigated how electoral systems influence corruption. We try to address this lacuna in the literature, by relating corruption to different features of the electoral system in a sample from the late nineties encompassing more than 80 (developed and developing) democracies.

Our empirical results are based on traditional regression methods, as well as non-parametric estimators. The evidence is consistent with the theoretical models reviewed in the paper. Holding constant a variety of economic and social variables, we and that larger voting districts and thus lower barriers to entry are associated with less corruption, whereas larger shares of candidates elected from party lists - and thus less individual accountability - are associated with more corruption. Altogether, proportional elections are associated with more corruption, since voting over party lists is the dominant effect, while the district magnitude effect is less robust.

[..]These are all models of electoral competition predicting that the extraction of rents is increasing in political instability, as more instability makes the perceived probability of winning less sensitive to rent extraction. Persson and Tabellini (1999) also contrast equilib rium behavior by politicians in two stylized electoral systems: one with PR in a single nation-wide district, another with plurality rule in a number of single- member districts. Electoral competition becomes stiffer in the latter system, as the candidates are induced to focus their attention on winning a majority, not in the population at large, but in marginal districts. containing a large number of swing voters.

As these voters are more willing to switch their votes in response to policy, candidates become more disciplined and extract less equilibrium rents. This prediction is less precise than those above, in that the argument does not distinguish well between district magnitude and the electoral formula. Countries with majoritarian electoral systems typically combine single-member districts and plurality rule, however.

At the opposite extreme, some proportional systems indeed have large districts and voters choose among party lists (Israel e.g. have just one nation-wide district where all representatives are elected and very low thresholds). But in between these polar cases you find intermediate systems, involving different district magnitudes, different size thresholds, and multi-tier systems mixing plurality rule and PR2. This institutional variation is fortunate in that it allows us to test separately the different hypotheses outlined above.

1 NBER Working Paper 8154. www.nber.org/papers/w8154

These can be summarized as follows:

H1: Ceteris paribus, countries with larger district magnitude and lower thresholds for representation should have less corruption (the barriers-to-entry effect).

H2: Ceteris paribus, countries with a larger share of representatives elected as individuals rather than as members of lists should have less corruption (the career-concern effect).

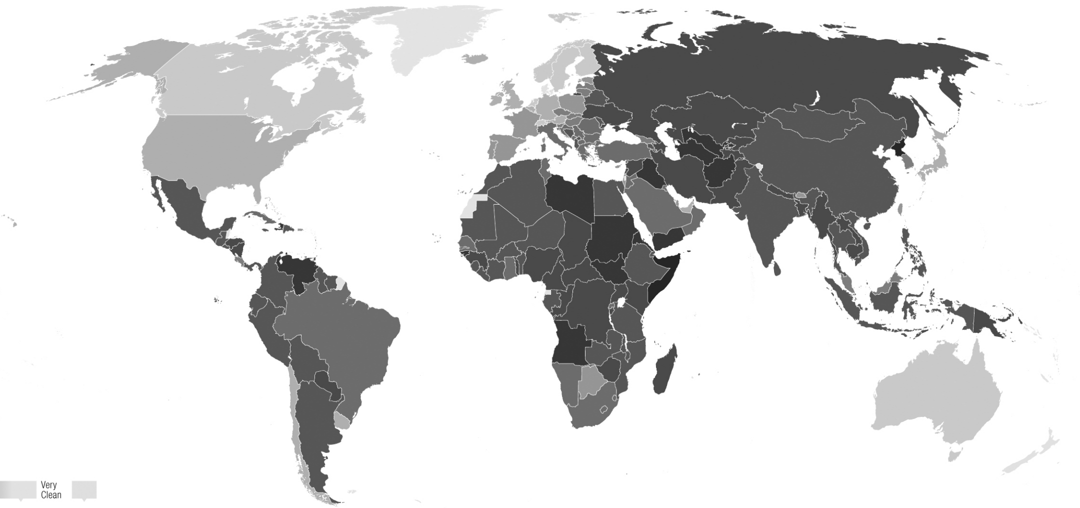
H3: Ceteris paribus, plurality rule in single-member districts should be associated with less corruption than PR in large districts; moreover, corruption should be larger,
the larger is political instability (the electoral-competition effect).

Annex 4

TRANSPARENCY INTERNATIONAL
the global coalition against corruption

CORRUPTION PERCEPTIONS INDEX 2014

The perceived levels of public sector corruption in 175 countries/territories around the world.



SCORE

Highly Corrupt 0-9 10-19 20-29 30-39 40-49 50-59 60-69 70-79 80-89 90-100 Very Clean — No data

RANK	COUNTRY/TERRITORY	SCORE
1	Denmark	92
2	New Zealand	91
3	Finland	89
4	Sweden	87
5	Norway	86
5	Switzerland	86
7	Singapore	84
8	Netherlands	83
9	Luxembourg	82
10	Canada	81
11	Australia	80
12	Germany	79
12	Iceland	79
14	United Kingdom	78
15	Belgium	76
15	Japan	76
17	Barbados	74
17	Hong Kong	74
17	Ireland	74
17	United States	74
21	Chile	73
21	Uruguay	73
23	Austria	72
24	Bahamas	71
25	United Arab Emirates	70
26	Estonia	69
26	France	69
26	Qatar	69
29	Saint Vincent and the Grenadines	67
30	Bhutan	65
31	Botswana	63
31	Cyprus	63
31	Portugal	63
31	Puerto Rico	63
35	Poland	61
35	Taiwan	61
37	Israel	60
37	Spain	60
39	Dominica	58
39	Lithuania	58
39	Slovenia	58
42	Cape Verde	57
43	Korea (South)	55
43	Latvia	55
43	Malta	55
43	Seychelles	55
47	Costa Rica	54
47	Hungary	54
47	Mauritius	54
50	Georgia	52
50	Malaysia	52
50	Samoa	52
53	Czech Republic	51
54	Slovakia	50
55	Bahrain	49
55	Jordan	49
55	Lesotho	49
55	Namibia	49
55	Rwanda	49
55	Saudi Arabia	49
61	Croatia	48
61	Ghana	48
63	Cuba	46
64	Oman	45
64	The FYR of Macedonia	45
64	Turkey	45
67	Kuwait	44
67	South Africa	44
69	Brazil	43
69	Bulgaria	43
69	Greece	43
69	Italy	43
69	Romania	43
69	Senegal	43
69	Swaziland	43
76	Montenegro	42
76	Sao Tome and Principe	42
78	Serbia	41
79	Tunisia	40
80	Benin	39
80	Bosnia and Herzegovina	39
80	El Salvador	39
80	Mongolia	39
80	Morocco	39
85	Burkina Faso	38
85	India	38
85	Jamaica	38
85	Peru	38
85	Philippines	38
85	Sri Lanka	38
85	Thailand	38
85	Trinidad and Tobago	38
85	Zambia	38
94	Armenia	37
94	Colombia	37
94	Egypt	37
94	Gabon	37
94	Liberia	37
94	Panama	37
100	Algeria	36
100	China	36
100	Suriname	36
103	Bolivia	35
103	Mexico	35
103	Moldova	35
103	Niger	35
107	Argentina	34
107	Djibouti	34
107	Indonesia	34
110	Albania	33
110	Ecuador	33
110	Ethiopia	33
110	Kosovo	33
110	Malawi	33
115	Côte d'Ivoire	32
115	Dominican Republic	32
115	Guatemala	32
115	Mali	32
119	Belarus	31
119	Mozambique	31
119	Sierra Leone	31
119	Tanzania	31
119	Vietnam	31
124	Guyana	30
124	Mauritania	30
126	Azerbaijan	29
126	Gambia	29
126	Honduras	29
126	Kazakhstan	29
126	Nepal	29
126	Pakistan	29
126	Togo	29
133	Madagascar	28
133	Nicaragua	28
133	Timor-Leste	28
136	Cameroon	27
136	Iran	27
136	Kyrgyzstan	27
136	Lebanon	27
136	Nigeria	27
136	Russia	27
142	Comoros	26
142	Uganda	26
142	Ukraine	26
145	Bangladesh	25
145	Guinea	25
145	Kenya	25
145	Laos	25
145	Papua New Guinea	25
150	Central African Republic	24
150	Paraguay	24
152	Congo Republic	23
152	Tajikistan	23
154	Chad	22
154	Democratic Republic of the Congo	22
156	Cambodia	21
156	Myanmar	21
156	Zimbabwe	21
159	Burundi	20
159	Syria	20
161	Angola	19
161	Guinea-Bissau	19
161	Haiti	19
161	Venezuela	19
161	Yemen	19
166	Eritrea	18
166	Libya	18
166	Uzbekistan	18
169	Turkmenistan	17
170	Iraq	16
171	South Sudan	15
172	Afghanistan	12
173	Sudan	11
174	Korea (North)	8
174	Somalia	8

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Annex 5

Clean Business Is Good Business

The Business Case against Corruption

A joint publication by the International Chamber of Commerce, Transparency International, the United Nations Global Compact and the World Economic Forum Partnering Against Corruption Initiative (PACI).

ICC
International Chamber of Commerce
The world business organization

TRANSPARENCY INTERNATIONAL
the global coalition against corruption

United Nations Global Compact

WORLD ECONOMIC FORUM
COMMITTED TO IMPROVING THE STATE OF THE WORLD

Facts and Figures*

Corruption, the abuse of entrusted power for private gain, is the single greatest obstacle to economic and social development around the world. It distorts markets, stifles economic growth, debases democracy and undermines the rule of law.

- Estimates show that the cost of corruption equals more than 5% of global GDP (US $2.6 trillion), with over US $1 trillion paid in bribes each year.
- Corruption adds up to 10% to the total cost of doing business globally, and up to 25% to the cost of procurement contracts in developing countries.
- Moving business from a country with a low level of corruption to a country with medium or high levels of corruption is found to be equivalent to a 20% tax on foreign business.

International Law

The international legal framework that companies are facing is changing fast and has been strengthened during recent years. It now includes the following intergovernmental instruments:

- Inter-American Convention Against Corruption (1996)
- OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions (1997)
- European Union Instruments on Corruption
- Council of Europe Conventions on Corruption (1997-1999)
- The African Union Convention on Preventing and Combating Corruption (2003)
- United Nations Convention Against Corruption (2003)

Governmental instruments are also increasingly being adopted at the national level; sometimes with global implications to companies, i.e. the Foreign Corrupt Practices Act and the Sarbanes-Oxley Act in the US.

Why Should Your Company Engage?

Companies are subject to extortion and some play a role in paying bribes. Accordingly, the private sector is also part of the problem and can also be part of the solution (for example, by sharing responsibility for finding ways to effectively fight corruption).

What Can Your Company Do?

An increasing number of companies are demonstrating leadership by implementing effective anti-corruption programmes within their companies. Common features of such programmes include:

- Detailed policies on company-specific bribery issues such as kickbacks, extortion, protection money, facilitation payments, conflicts of interest, gifts and hospitality, fraud and money laundering, and political and charitable contributions
- Management systems and procedures outlining frameworks for risk assessment, training, sanctions, whistle-blowing, continuous internal self-review and external reporting

Companies are increasingly engaging in sector-specific or multi-industry initiatives, locally, regionally and/or globally, to share their experiences, learn from peers and, in partnership with other stakeholders, contribute to levelling the playing field.

There are a number of principles, recommendations and guidance and implementation tools available to companies. They have been developed in cooperation with companies and tested in real corporate environments. See the back of the leaflet for further information.

*Source: World Bank

Corruption Remains a Serious Problem for Companies in Most Parts of the World and across Industries

Countries Particularly Prone to Corruption

Industries Particularly Prone to Corruption

- Public works/construction (1.3)
- Arms and defence (1.9)
- Oil and gas (2.7)
- Real estate/property (3.5)
- Telecommunications (3.7)
- Power generation/transmission (3.7)
- Mining (4.0)
- Transportation/storage (4.3)
- Pharmaceuticals/medical care (4.3)
- Heavy manufacturing (4.5)
- Banking/finance (4.7)
- Civilian aerospace (4.9)
- Forestry (5.1)
- IT (5.1)
- Fisheries (5.9)
- Light manufacturing (5.9)
- Agriculture (5.9)

Note: The map is based on Transparency International's 2007 Corruption Perceptions Index. The score relates to perceptions of the degree of corruption ranges between 10 (highly clean) and 0 (highly corrupt). The Industries ranking is drawn from Transparency International's 2002 Bribe Payers Index. The scores, similarly from 0 to 10, reflect the propensity of companies in different sectors to pay bribes.

The Business Rationale for Fighting Corruption

	Benefits of Engaging	Risks of Not Engaging
Individual Company Action	• Reduce the cost of doing business • Attract investments from ethically oriented investors • Attract and retain highly principled employees, improving employee morale • Obtain a competitive advantage of becoming the preferred choice of ethically concerned customers/consumers • Qualify for reduced legal sanctions in jurisdictions like the US and Italy	• Criminal prosecution, in some jurisdictions both at company and senior management levels which can lead to imprisonment • Exclusion from bidding processes, e.g. for international finance institutions and export credit agencies • "Casino risk" – no legal remedies if a counterpart does not deliver as agreed and/or keeps increasing the price for doing so • Damage to reputation, brand and share price • Tougher fight for talent when hiring new employees • Regulatory censure • Cost of corrective action and possible fines
Collective Action by Business	• Create a level playing field overcoming the "prisoner's dilemma" • Improve public trust in business • Influence future laws and regulations	• Missed business opportunities in distorted markets • Increased magnitude of corruption • Policy-makers responding by adopting tougher and more rigid laws and regulations – internationally, regionally and nationally

"MWH has a core value to be a trustworthy business partner. Honesty, professionalism, ethical behaviour and integrity with our staff, clients and supply chain are integral to the way we do business."

Robert Uhler, Chief Executive Officer, MWH Global, USA

"Corruption is the single greatest obstacle to economic and social development, and the fight against it is imperative. With our considerable resources, practical experience and front line position, international business must take a stand, for it is no longer enough to simply be against corruption or other unethical business practices. Global business leaders must be fully engaged in eradicating them and levelling the competitive playing field for all."

Alan L. Boeckmann, Chairman and Chief Executive Officer, Fluor Corporation, USA

"Good governance is a requirement for sustainable development and effective markets. StatoilHydro supports the global fight against corruption."

Helge Lund, President and Chief Executive Officer, StatoilHydro, Norway

"MTN subsists on five brand values – integrity, leadership, relationships, innovation and can-do. These values are the essence of MTN, defining our people, policies and practices. Integrity is a promise that we have made to all our stakeholders – of fairness, transparency, honesty and accountability in all our dealings. As we maintain our leadership position in Nigerian telecommunications, we are committed to also leading the way in zero tolerance for corrupt practices."

Ahmad Farroukh, Chief Executive Officer, MTN Nigeria, Nigeria

"Our objective in this area is to make it clear to governments that the business interest lies in the widest possible international commitment to anti-corruption rules, so that we may compete on a level playing field on a sound ethical and legal basis."

Paul Skinner, Chairman, Rio Tinto, United Kingdom

"There is no business which is so important that we will jeopardize our business ethics."

Lars Rebien Sorensen, President and Chief Executive Officer, Novo Nordisk, Denmark

Global, Multi-industry Initiatives

Even companies demonstrating anti-corruption leadership are facing challenges that they cannot effectively solve themselves, i.e. eliminating facilitation payments and the prisoner's dilemma. Four mutually supportive global, multi-industry initiatives work together with companies to address such collective business challenges:

International Chamber of Commerce (ICC)
ICC speaks with authority on behalf of enterprises from all sectors around the world. In 2005, it issued a revised version of its Rules and Recommendations to Combat Extortion and Bribery, first published in 1977. The ICC Commission on Anti-Corruption brings together experts from a wide range of business sectors and national backgrounds. It promotes self-regulation by enterprises in confronting extortion and bribery and provides business input into international initiatives to fight corruption. For more information, visit www.iccwbo.org or contact viviane.schiavi@iccwbo.org.

Transparency International (TI)
TI, the global coalition against corruption, addresses corruption through a wide range of tools and over 90 national chapters. In 2002, it worked with a multistakeholder and international steering committee of companies, business associations, academics, union representatives and civil society organizations to publish an anti-corruption code entitled Business Principles for Countering Bribery. This code formed the basis for the PACI Principles, developed with the World Economic Forum. Since then, insights gained from workshops held around the world have led to the development of a suite of tools to support companies in developing and implementing anti-corruption policies, monitoring their effectiveness and publicly reporting their results. For more information, visit www.transparency.org or contact businessprinciples@transparency.org.

United Nations Global Compact (GC)
In 2004, a 10th Principle was added to the United Nations Global Compact, a multistakeholder initiative, sending a strong signal that the private sector shares responsibility for eliminating corruption. The principle states: "Businesses should work against corruption in all its forms, including extortion and bribery." The adoption of the 10th Principle commits the almost 4,000 Global Compact participants not only to avoid bribery, extortion and other forms of corruption, but also to develop policies and concrete programmes to address it. The United Nations Global Compact is a voluntary initiative with a mandatory requirement for business participants to disclose, on an annual basis, performance changes in the issue areas. For more information, visit www.unglobalcompact.org or contact makinwa@un.org.

World Economic Forum Partnering Against Corruption Initiative (PACI)
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Johan van Zyl, Group Chief Executive, Sanlam, South Africa

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PAPER

Russia's Concerns for the EU-Ukraine Association: Myths and Realities

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Abstract Reaction of Russian Federation to the EU-Ukraine Association Agreement and the Deep and Comprehensive Free Trade Area (DCFTA) as a part of it is a significant challenge for Ukraine. A great majority of Russia's concerns can be questioned or be easily solved by legal instruments. Instead Russia practiced hard negotiations in a form of economic war against Ukraine. Hypothetical and practical concessions to Russia related to the Association Agreement implementation are discussed. We pay special attention to raising competition for Russian exports as a possible motivation for actions of Russia. The paper studies two possible motivations in details. The first one is the possibility of increased competitive pressure of Ukrainian exports to the EU on Russian exports to the EU because of the EU preferential treatment for Ukraine (competition in the EU market). And the second one is the possibility of increased competitive pressure of the EU exports to Ukraine on Russian exports to Ukraine because of Ukraine's preferential treatment for the EU (competition in Ukrainian market). We compare trade structures of bilateral exports of the three countries to estimate the possibility of such motivations. Our calculations show that increase in competitive pressure on Russian exports is rather low. Our research provides the evidence in favor the presumption that economically the EU-Ukraine DCFTA is only a minor challenge for the Russian economy, and hard approach to Ukraine is rather a political decision of Russian authorities. Return to non-confrontation regime can be mutually beneficial for Ukraine, the EU and Russia.

Keywords Economic integration - European integration - Free trade
Trade diversion - Third country effects

JEL classification F15

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1. Introduction

The EU-Ukraine Association Agreement (AA) and the Deep and Comprehensive Free Trade Area (DCFTA) as a part of it became a milestone in European integration process of Ukraine. Despite Ukrainian economy is disproportionally smaller than the EU economy, Ukraine is one of the biggest European nations, and the EU is one of the two main trade partners of Ukraine. Being a large and detailed document AA combines free trade area (FTA) in goods and incompletely increases freedom for movement of services, capital, intellectual property rights, and labor. Under normal and optimistic scenarios with investment inflows and territorial integrity benefits of AA for Ukraine offset costs for restructuring its economy at least in the middle and long-term perspective. But a significant challenge for DCFTA implementation is the reaction of Russian Federation, Ukraine's another traditional main trade partner.

In this article we aim at defining main specific features of DCFTA, reaction of Russia on DCFTA preparation and perspective implementation, and possible future scenarios. We also estimate and compare possible losses of Russia in case of DCFTA implementation and costs of its hard treatment of Ukraine in order to prove or reason away economic motivation for Russia's position and its evolution.

2. Previous research review

There several previous studies of this issue. M. Dabrowski and S.Taran (2012) expected that despite DCFTA would offer net benefits for the EU and Ukraine, potential gains and adjustment costs would be larger for Ukraine as a smaller and more open economy than the EU.

In Oxford Economics (2012) they consider possible effects of various scenarios of European integration of Ukraine (classic FTA, DCFTA, customs union). Their estimation shows that DCFTA is the most beneficial scenario for Ukraine (the GDP gains would amount to around 4.3% partially because of greater regulatory harmonization). They also discuss four potential economic effects of DCFTA on Russia:

- an increase in competition for Russian firms exporting to Ukraine;
- an increase in competition between Russian and Ukrainian goods in EU markets;
- a change in the direction of flow of Ukrainian exports;
- a change in direction of capital flows.

According to their estimations, Russia accounted for 10.5% of the EU imports in 2010, while Ukraine accounted only for 0.8%. And the only Russia important industry that may face increased competition under DCFTA is metallurgy. As for the Ukrainian market, around 230 categories of products of 4700 imported ones by Ukraine can be affected by the DCFTA, but they accounted for only 5% of Russian total exports to Ukraine. They include some food products (coffee and chocolate, some types of pastry, margarine, canned food, etc.) and some industrial products (hair care materials, pneumatic tires, oxide magnesium, copper wire, distribution plates etc.).

O.Shnyrkov (2013) in its previous research argues that Russia has significant trade influence on economic development Ukraine, and even can cause an economic crisis. Thus the positive effects of DCFTA with the EU would not compensate in full the losses of the Ukrainian economy under restrictive trade measures by Russia during the first 3-4 years. The main factor of possible negative impact is a gas price. Without solving this problem, launching AA in 2013 might be delayed. But effects of DFTA would depend on the depth of the integration with the EU, forms of reactions, the effectiveness of adaptation of the Ukrainian economy. FTAs with the EU and the CIS are treated as the first best choice, while other models of regional integration without AA are considered as the second best scenario, which would restrain the restructuring and modernization of the economy, especially in the medium and long term.

M. Emerson (2014) states that fears expressed by Russian leaders about DCFTA's harmful nature for Russia seem unfounded, but still they intended to provide a legal basis for punitive action against Ukraine. Hypothetical Pan-European FTA (PEFTA) is discussed. It can be an agreement between the EU and the Eurasian Economic Union, which may also include DCFTA and EFTA states. Arguments of Russia that this would disproportionately benefit the EU are contested. Despite the fact that the EU uses lower tariffs on its main commodity imports from Russia than the tariffs that Russia uses for imports from the EU, this agreement is relatively more important for Russia and may stimulate its modernization, while it would be of marginal benefit for the EU.

P.Havlik (2014) argues that if Russia uses trade barriers as a punishment for Ukraine it would hit more advanced part of Ukrainian economy, such as transport equipment and machinery, which is located largely in the eastern part of the country, immediately and disproportionally, while this part of Ukrainian exports is largely not competitive on the EU markets. Alternative EurAsEC Customs Union (CU) integration of Ukraine would help those industries to survive but would leave them without restructuring and modernization pressure.

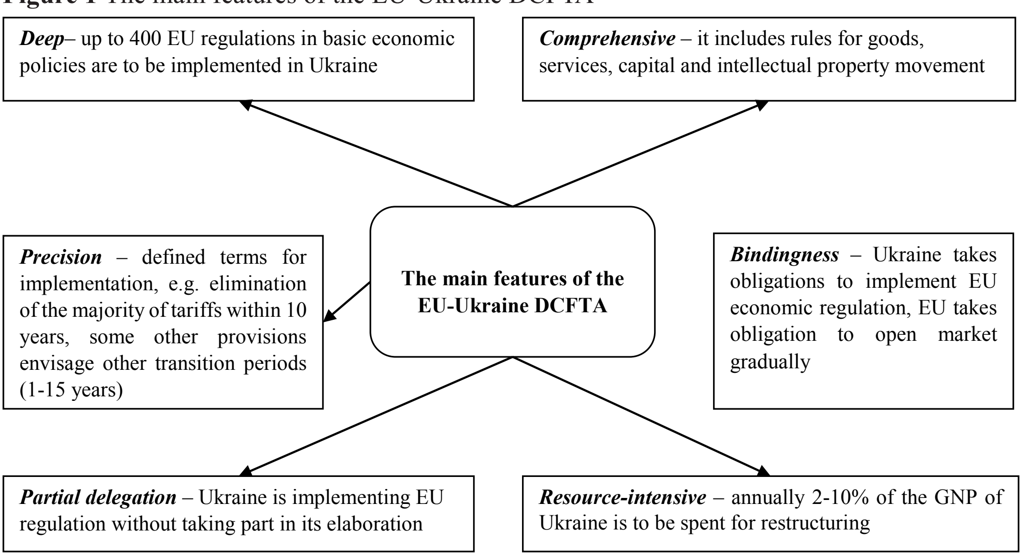
S. Berenda (2014) states that DCFTA uses functional approach unlike the EurAsEC institutional approach. Under DCFTA Ukraine partially joins acquis communautaire and thus obtains partial EU membership de-facto without ordinary institutional mechanisms of membership. He also argues that the EU-Russia relations would depend more likely upon the concept of establishment of the Trans-Atlantic FTA and not upon the FTA from Lisbon to Vladivostok. Thus Russia tries to keep Ukraine within its area of influence. He also questions the primacy of historical specialization and cooperation determining economic integration in the Post-Soviet area advocated by Yu.S. Glaziev. The optimal scenario for Ukraine would be establishment of Eurasian economic area from Atlantic to Pacific ocean, but with preserving sovereignty and without domination of any single center. Deepening cooperation of Ukraine with the EurAsEC CU without membership in it can be achieved by better customs cooperation and liberalization of trade in services. Signing AA is necessary at least with step-by-step implementation of its components.

S. Kulik et al (2014) argue that under further worsening of economic relations with Russia and the EurAsEC CU, Ukraine's losses may reach $33 billion annually in the next years. Russia's losses would be high as well. They state that the advantages of DCFTA would appear mostly only in the long-term perspective and the previous estimated effect should be recalculated considering new conditions. They also consider dependence of Ukraine on the EurAsEC CU markets, rapid transition to the EU technical regulations as a barrier to the EurAsEC originating FDI, threats for labor migration and other trips. They claim that substitute markets can be found for 48% of 14 largest categories of Russian exports to Ukraine.

3. Legal basis and trade negotiations

The economic part of the EU-Ukraine AA has been delayed until the beginning of 2016 because of the Russia's opposition. The possible future options of the DCFTA could be revealed upon analysis of the main features of the EU-Ukraine DCFTA (see figure 1).

Figure 1 The main features of the EU-Ukraine DCFTA



Starting from August 2013 Russia clearly objected to AA and DCFTA. We can summarize Russia's concerns and provide counter-arguments:

1. Russian economy is risked being flooded with goods from the EU, which would formally be considered as Ukrainian and thus be subject to the CIS FTA preferential

treatment. But, first, this statement ignores the rules of origin applied by WTO members. Second, fraudulent use of certificates of origin can be effectively tackled. Legal provisions can be introduced to punish a party within a FTA for non-cooperation in this field. E.g. in AA the Article 37 means that a Party may suspend preferential treatment for the respective product for 6 month if another Party fails to cooperate and imports of goods exceed the usual level of production and export capacity of the other Party. Third, cheaper inputs for Ukrainian products would have a marginal effect, significantly smaller that of e.g. devaluation of Ukrainian currency. Fourth, practice in other FTA shows that sometimes companies (especially small ones) do not benefit from the preferential treatment, because proving the origin is too costly.

2. Russian economy may be flooded by Ukrainian goods uncompetitive with the European ones. But within WTO rules any country facing increase in import threatening national industries may protect them by imposing safeguard measure in a form of duties, quotas etc. and there is no need to stop the existing FTA. Moreover, transition periods for tariff reduction in Ukraine exist for a significant part of products.

3. If Ukraine adopts EU technical product standards it would hinder traditional trade flows between Russia and Ukraine. But these standards should be applied to sales on domestic market or to the EU only, while sales to Russia should meet Russian technical standards. Also as the EU regulations largely provide better quality, any country is interested to ensure better quality for its citizens as its economy advances. We also show below that only minor part of Russian products are currently exported to Ukraine because of non-compliance with the EU regulations. Even if it is a problem a simple solution may be launched for Russian goods exported to Ukraine: an agreement for mutual recognition.

4. DCFTA would mean an erosion of Russia's goods competitiveness at the Ukrainian market. But at the beginning of 2015 there are more than 600 FTAs notified by 159 WTO members, and most of the countries practice cross-membership in multiple FTAs. DCFTA only eliminates the trade diversion effect existing due to the CIS FTA. Moreover most of Russian and the EU exporters are non-competitors because of different trade structure.

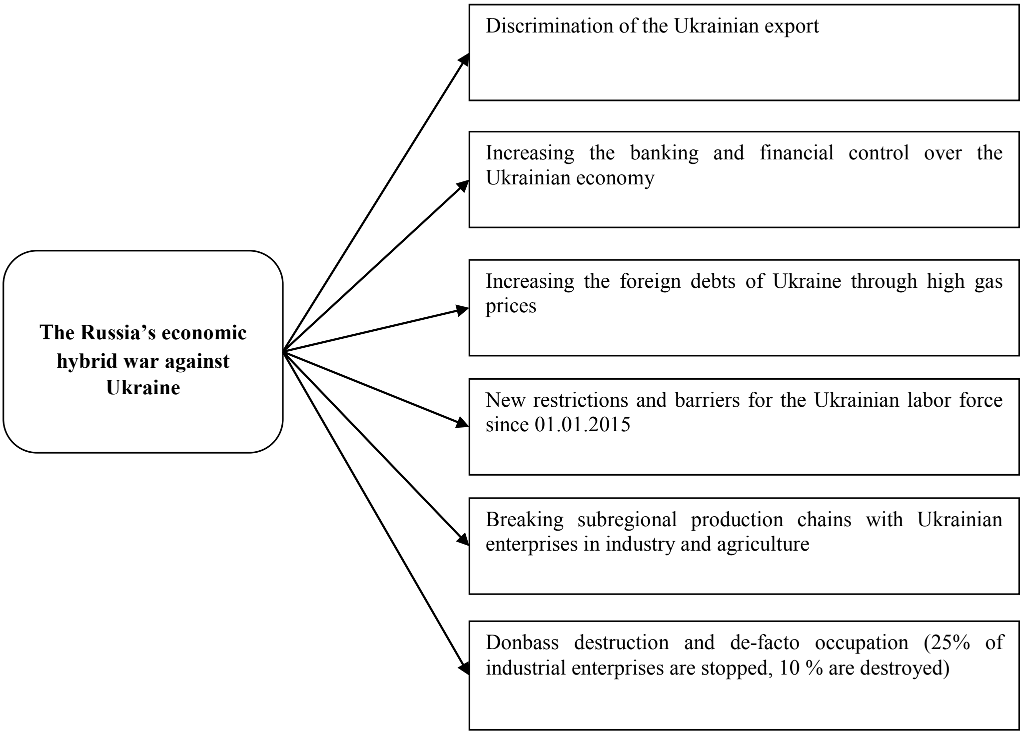
5. Ukraine should not grant any competences to the EU national or international institution. This statement is partially true: DCFTA is based upon partial delegation. But entering Eurasian Economic Union as an alternative integration direction also means partial delegation.

6. The last concern is of great and principal importance for Russia: the DCFTA implementation makes it impossible for Ukraine to join the EuroAsian Economic Union / Customs Union. We may say that DCFTA doesn't preclude Ukraine to sign other classical FTAs and it does not conflict with Ukraine's membership in the CIS FTA. Moreover the CIS FTA may be supplemented with the economic integration agreement (free trade in services) and thus become an FTA+ agreement with Ukraine's membership. As for joining the EAEU CU, despite the Article 39 of AA allows joining customs unions, de-facto this or other developed forms of international integration are possible for Ukraine only upon quitting DCFTA. The options for simultaneous membership of

Ukraine in the DCFTA and Customs Union (EAEU) are rather hypothetical. It could be possible if the Customs Union conclude a similar DCFTA with the EU. Also this scenario possible if Ukraine keeps tariffs within a transitional period smaller (or zero level) than the CU tariffs for a large share of goods where it is committed to keep them low according to the DCFTA or WTO commitments. In this case the mechanism of conditional release of imports may be practiced (it is envisaged by the Article 200 of the CU Customs Code). But this may conflict with the paragraph 8(a) of the Article 24 of the GATT providing definition of custom union, when it states that “substantially the same duties and other regulations of commerce are applied by each of the members of the union to the trade of territories not included in the union” and can be considered as a precedent.

Since that time Russia launched a real economic war against Ukraine. Aggression, war, discrimination, sanctions, blackmailing, blockade are the terminology describing current economic relationship of Russia with Ukraine. Ukraine faced more than 40 trade wars, 4 gas wars in 2004-2015. According to V. Sidenko (2014) only in January – October 2014 up to 90% (tariff lines) of Ukrainian exports to Russia were discriminated (32.4% Ukrainian exports to Russia declined by 10-20%; 41.2% – by 20-40%; 13.7% – by more than 40%). Figure 2 Shows the main aspects of the Russia’s economic hybrid war against Ukraine.

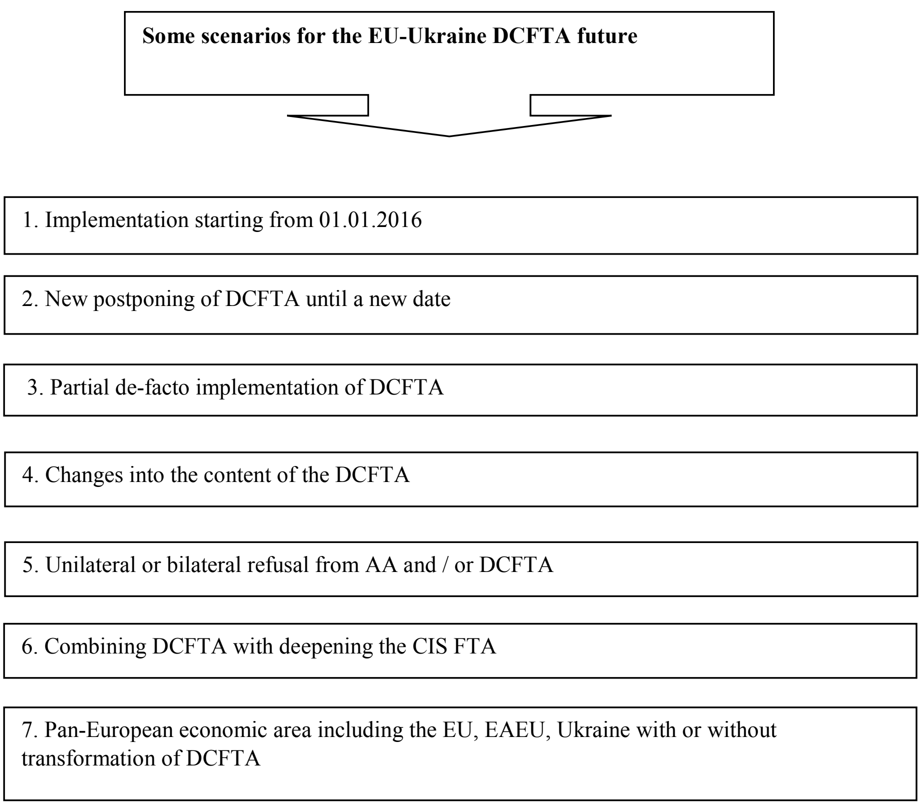
Figure 2 The Russia’s economic hybrid war against Ukraine



Many analysts believe that the destruction and occupation of Donbass was intended to stop Ukraine's European integration. Renewal of the destroyed objects may cost $1.5 bln. Risk of military actions renewal is the main factor for blocking national and foreign investments. Ukraine has to bear high military expenditure (17 % of state budget expenditures) instead of solving social, infrastructural and other problems.

Modeling impact of DCFTA and Russian retaliation on consumption in Ukraine shows that the opening of the EU market to Ukrainian exports would not compensate the losses in the Russian market. And the depth and duration of the economic crisis in Ukraine depend upon the effectiveness of the adaptation process and a whole range of internal and external factors. Under the military aggression against Ukraine the EU and Ukraine had to concede to Russia in the DCFTA implementation. There are several options for the EU-Ukraine DCFTA future (see figure 3). Each of the options has its own assumptions.

Figure 3 Some scenarios for the EU-Ukraine DCFTA future



New postponing of DCFTA until a new date is less likely because Russia does not insists on it anymore. It could be with two options: a new fixed date or date depending upon AA ratification by the EU member-states. Scenario with changes into the content of the DCFTA also has two options: minor changes with protocols or additional agreements or transforming DCFTA into a classical FTA. As for the last scenario Pan-European economic area, it would be a good option for Ukraine, but Russia may be less interested in it as a large energy and raw material exporter.

As for now the EU-Ukraine DCFTA concessions to Russia include:

- delay of implementing the economic part of AA until 01.01.2016;
- the ratification process for AA slowed down in the EU: 18 EU countries ratified it as of 01.06.2015;
- the Crimea, Sevastopol, and some districts of Donetsk and Lugansk regions are de-facto outside the territory which is covered by AA (Minsk-2 agreement);
- these territories are de-facto parts of the EAEU;
- trilateral talks (the EU, Ukraine, Russia) on the practical solution of the question under the Russia's concerns regarding DCFTA implementation started.

On May 18, 2015 these trilateral talks on the implementation of the EU-Ukraine Association Agreement took place in Brussels. These were the third meeting at the ministerial level (the previous ones took place in July and September of 2014). According to European Commission (2015) the parties decided to improve efforts to deal with the following concerns raised by Russia:

Customs cooperation:

- improvement of customs data exchange and electronic verification of origins;
- tackling additional issues (e.g. fighting against fraud);
- revising rules of origin of the CIS FTA;
- customs cooperation between the EU and Russia, technical support and expert advice by the EU.

Technical barriers to trade:

- establishment of a working group for harmonizing process in order to minimize the impact of regulatory changes, recognizing importance of convergence of technical regulations and standards;
- extending transition periods for regulatory alignment for specific sectors and products.

Sanitary and phytosanitary issues: updating arrangement between Ukraine and Russia on bilateral acceptance of veterinary certificates.

At the meeting between Russian President V.Putin with the Government on May 20, 2015 the Minister for Economic Development A.Ulyukayev (Ministerstvo ekonomicheskogo razvitiya Rossiyskoy Federatsii (2015)) announced that 5 remaining issues are subject to concerns by Russia:

- tariff liberalization between the EU and Ukraine (establishment of transition periods);
- technical regulations (right to choose the EU or CIS countries rules by companies);

- sanitary and phytosanitary measures (Ukraine's joining certification within the EAEU);
- customs administration (electronic documents, rules of origin, information exchange);
- energy (parallel operation of unified energy systems of Ukraine and Russia).

It was decided that these issues were to be dealt within working groups by July and should result in a form of protocols to AA or separate agreements. At the same time Russia no more insists on suspension of AA implementation. Thus Russia came to a political decision not to object to the implementation of AA.

In case Russia finds the solutions to be suggested by the working groups unacceptable it may use the provisions of the Government Regulation of Russian Federation No 959 (Pravitelstvo RF (2014). It envisages elimination of free trade regime for imports of specific products from Ukraine. Instead of that the CU MFN tariffs are to be applied. These products include selected agricultural, food, beverages, tobacco chemical, textile, metal products, electric appliances, road vehicles, ships, furniture, and construction materials.

On June 4-5, 2015 trilateral consultations continued to discuss Ukraine's adoption of the EU technical regulations and customs cooperation. Russia suggested that Ukraine should implement technical regulations only after 10 years. But Ukraine had already adopted 21 out of 24 technical regulations, and many of them have already become operative (Ekspres onlain (2015)). Also during October 2014 – March 2015 Ukraine adjusted 8848 (out of about 29 600) technical standards (Ievropeiskaya Pravda (2015).

4. Estimation results

Further we study two possible motivations of Russia's opposing implementation of the EU-Ukraine DCFTA in details. The first one is the possibility of increased competitive pressure of Ukrainian exports to the EU on Russian exports to the EU because of the EU preferential treatment for Ukraine under autonomous preferential trade regime and later under FTA (competition in the EU market). And the second one is the possibility of increased competitive pressure of the EU exports to Ukraine on Russian exports to Ukraine because of Ukraine's preferential treatment for the EU under FTA (competition in Ukrainian market). The first motivation is a possible trade diversion effect caused by DCFTA, and the second one is disappearance of possible trade diversion effect existing under the CIS FTA. We also should say that certain trade discrimination of third parties caused by establishment of new preferential trade agreements is a normal outcome. And the normal practice to solve this problem is to sign similar agreements with the third parties (in this case establishing the EU-Russia FTA is possible).

In order to estimate the possibility of such motivations, first we compare trade structures of bilateral exports of the three countries (economies). We use the UNCTAD data (http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx) – Merchandise trade matrix - detailed products, imports in thousands of dollars, annual. The latest available data was as of 2013. Despite the time lag in publishing this information, considering the 2013 data in our research has some advantages – it reflects trade volume and structure under non-confrontation regime, which existed prior to the instability in mutual international relations in 2014-2015 and which still may take place in future under the most favorable scenario.

We use the next formula to estimate whether exports are structurally different, and thus are mutually non-competing, or structurally similar, and thus there is a threat, that DCFTA can increase competitive pressure on Russian exports:

$$IESD = \Sigma abs(S_{ia} - S_{ib}) / 200\%$$

Where IESD – index of exports structural difference, % (0% means that exports structures of two exporting countries (economies) to the third one, are perfectly similar, and 100% means that they are perfectly different);
Sia – share of the product group i in exports of country a to the third country;
Sib – share of the product group i in exports of country b to the third country.

The results show that increase in competitive pressure on Russian exports is rather low. The IESD for Ukrainian and Russian exports to the EU is 86%. And since we used the data about 255 product groups for our calculations instead of the data about specific individual products the true value of IESD calculated under more precise method should be bigger than 86%. Thus only less than 1/7 of Russian exports to the EU may face increased competition from the Ukrainian exports. The IESD for the EU and Russian exports to Ukraine is 65%. In this case competitive pressure increase is somewhat bigger, but even in this case at least 2/3 of Russian exports to Ukraine face no competition from the EU entities. Again these are the maximum estimates of threat to Russian exporters as we have not considered the existing tariffs which are to be eliminated in the EU-Ukraine mutual trade. In some cases the tariffs have already been 0% or close to 0%, and thus the EU and Ukraine will not provide preferential treatment to each other in such cases.
Let us further determine the most sensitive Russian industries that may face increased competitive pressure. Table 1 shows Russian exports to the EU that presumably may be sensitive to the EU-Ukraine DCFTA. We used two criteria to select the product groups: the value of export is at least \$100 mln (otherwise the export of such a product is too inessential to determine strategic political decisions);

the ratio of the share of Ukraine in the EU imports to the share of Russia in the EU imports is at least 0.3 (otherwise Ukraine is either non-competitor or inessential competitor to Russian exporters).

Table 1 Russian and Ukrainian exports to the EU, and the tariff preferences under DCFTA.

Sensitive product group	Exports from Russia to the EU, mln dol, 2013	Share in total exports from Russia to the EU,	Share of Russia in the EU imports, %, 2013	Share of Ukraine in the EU imports, %, 2013	The EU MFN import tariff, %, 2014
[044] Maize (not including sweet corn), unmilled	117	0.04	3.5	56.9	0 or Non-AV, TQ in AA
[081] Feeding stuff for animals (no unmilled cereals)	584	0.21	3.9	3.9	0-12 or Non-AV
[247] Wood in the rough or roughly squared	400	0.14	34.2	11.3	0-10
[248] Wood simply worked, and railway sleepers of wood	717	0.26	20.7	6.2	
[281] Iron ore and concentrates	1013	0.37	6.2	10.3	0
[351] Electric current	413	0.15	13.7	11.1	0
[421] Fixed vegetable fats & oils, crude, refined, fractio…	594	0.21	22.3	22.6	0-16 or Non-AV
[611] Leather	161	0.06	4.1	2.6	0-6.5
[671] Pig iron & spiegeleisen, sponge iron, powder & granu…	1701	0.61	17.3	9.7	0-2.2
[672] Ingots, primary forms, of iron or steel; semi-finis…	1668	0.60	37.4	45.9	0
[673] Flat-rolled prod., iron, non-alloy steel, not coated	1479	0.53	27.6	18.7	0
[676] Iron & steel bars, rods, angles, shapes & sections	633	0.23	14.4	7.9	0
[679] Tubes, pipes & hollow profiles, fittings, iron, steel	107	0.04	2.0	4.7	0-3.7
[778] Electrical machinery & apparatus, n.e.s.	188	0.07	0.6	0.4	0-14
[791] Railway vehicles & associated equipment	165	0.06	8.2	7.1	0-3.7

We see that only 15 product groups out of 255 may be considered as politically important, and their total share in Russian exports to the EU is only 3.6%. But we also should consider the absolute shares of Russian and Ukrainian exports in the EU imports and the EU MFN tariffs that are to be eliminated or decreased under the autonomous preferential trade regime or DCFTA. For the MFN tariff data we use the WTO data (Tariff download facility – http://tariffdata.wto.org/Default.aspx?culture=en-US). We also consider the

Annex 1-A of the EU-Ukraine AA in case additional details should be mentioned (tariff quotas, non-ad valorem tariffs or incomplete tariff elimination). Since we do not have the data about trade in specific products, we cannot calculate the weighted average tariffs. Thus we show the range using minimum and maximum tariffs in the product groups. If we further exclude Electrical machinery & apparatus, n.e.s. (both Russian and Ukrainian share in the EU imports is less than 1%) and those product groups, where MFN tariffs are 0%, only 9 product groups would remain which account for only 1.6% of Russian exports to the EU. These are maize, feeding stuff for animals, some wood products, vegetable oils etc., leather, some iron products, and railway machinery and equipment. If we calculate tariff preferences under DCFTA, the direct losses for the 8 industries (we exclude maize because of tariff quota) are estimated as from $0 to $324 mln. Even if we add minor exports groups, the possible negative effect of competitive pressure on Russian exports to the EU should be somewhere between several dozens and several hundreds million dollars, which is very much less than the losses from international political confrontation. No non-tariff barriers will be established by DCFTA because Russian exports to the EU already satisfy the existing technical and other non-tariff regulations. We used similar methodology to select Russian exports to Ukraine that may be sensitive to the EU-Ukraine DCFTA (see table 2). In this case we see that only 18 product groups out of 255 may be considered as politically important, but their total share in Russian exports to Ukraine is quite substantial (18.9%). If we exclude those product groups, where MFN tariffs are 0%, 15 product groups would remain which account for 16.8% of Russian exports to the EU. These are primarily petroleum oils or bituminous materials (8% of exports), and also chocolate, tobacco products, perfumery, polymers of ethylene, rubber tyres, some construction materials, some metal products, some electric machinery products, and railway equipment (their exports were $3.9 bln).

Table 2 Russian and the EU exports to Ukraine, and the tariff preferences under DCFTA

Sensitive product group	**Exports from Russia to the EU, mln dol, 2013**	**Share in total exports from Russia to the EU, %, 2013**	**Share of Russia in the EU imports, %, 2013**	**Share of Ukraine in the EU imports, %, 2013**	**The EU MFN import tariff, %, 2014**
[073] Chocolate, food preparations with cocoa, n.e.s.	121	0.52	59.5	36.0	5-15, some items - 20% decrease in 5 years in the AA

Sensitive product group	Exports from Russia to the EU, mln dol, 2013	Share in total exports from Russia to the EU, %, 2013	Share of Russia in the EU imports, %, 2013	Share of Ukraine in the EU imports, %, 2013	The EU MFN import tariff, %, 2014
[122] Tobacco, manufactured	105	0.45	58.9	21.0	10-20 or Non-AV
[334] Petroleum oils or bituminous minerals > 70 % oil	1859	8.00	29.0	30.5	0-10
[553] Perfumery, cosmetics or toilet prepar. (excluding soaps)	217	0.93	26.1	60.6	6.5
[571] Polymers of ethylene, in primary forms	136	0.58	23.2	35.6	0-5
[625] Rubber tyres, tyre treads or flaps & inner tubes	150	0.65	26.5	23.2	0-10
[641] Paper and paperboard	228	0.98	20.5	67.3	0
[661] Lime, cement, fabrica. constr. mat. (excludingglass, clay)	110	0.47	58.0	22.9	Mostly 2-10
[671] Pig iron & spiegeleisen, sponge iron, powder & granu…	104	0.45	29.3	9.3	5
[675] Flat-rolled products of alloy steel	151	0.65	27.5	13.9	0
[684] Aluminium	129	0.55	37.8	35.0	0
[699] Manufactures of base metal, n.e.s.	236	1.01	29.5	43.0	Mostly 0-10
[716] Rotating electric plant & parts thereof, n.e.s.	161	0.69	38.8	36.2	Mostly 0-10
[772] Apparatus for electrical circuits; board, panels	106	0.45	13.1	60.3	
[775] Household type equipment, electrical or not, n.e.s.	113	0.49	11.4	34.1	
[781] Motor vehicles for the transport of persons	221	0.95	7.4	47.3	5-20
[784] Parts & accessories of vehicles of 722, 781, 782, 783	100	0.43	14.6	47.2	0-10
[791] Railway vehicles & associated equipment	158	0.68	47.0	24.6	0-10

If we calculate tariff preferences under DCFTA, the direct losses for the 15 industries are estimated as from $40 to $400 mln. Even if we add minor exports groups, the possible negative effect of competitive pressure on Russian exports to the EU should be somewhere between several dozens and several hundreds million dollars too.

We should mind, that in case of exports to Ukraine also new non-tariff barriers may arise because of DCFTA, which effect is more difficult to predict. But we can estimate maximum vulnerability of Russian exports of specific product groups to Ukraine by calculating the ratio of the value of Russian exports to Ukraine to the value of Russian exports to the EU. If the ratio is bigger than 1, then presumably Russian exporters originally avoided stricter EU technical regulations by choosing to sell mostly to such countries as Ukraine, where technical regulations are different (before it joins the EU technical regulations). We also consider only main exports product groups (more than $100 mln). The table 3 shows the information about presumably sensitive Russian exports to Ukraine considering changes in non-tariff regulations in Ukraine because of DCFTA. Their total value in 2013 was $2.3 bln, which account for 10% of Russian exports to Ukraine. If we apply stricter condition (the ratio of 2) but consider all the products group regardless their value of exports, then the value of presumably sensitive exports would be $2.7 bln which account for 11.6% of Russian exports to Ukraine. Thus roughly speaking only every 1/9 of Russian exports to Ukraine can be vulnerable because of the necessity to comply with new non-tariff regulations. And this is the upper estimate for possible losses because of the DCFTA, considering that investment for adjusting to new regulations is presumably smaller. Moreover the share of Ukraine in total exports from Russia was only 4.5% in 2013 and decreased to 3.4% in 2014 according to International Monetary Fund Direction of Trade Statistics (http://data.imf.org/?sk=9D6028D4-F14A-464C-A2F2-59B2CD424B85).

Table 3 Russian exports to the EU and Ukraine

Sensitive product group	Exports from Russia to the EU, mln dol, 2013	Exports from Russia to Ukraine, mln dol, 2013	Ratio: Russian exports to Ukraine / Russian exports to the EU
[073] Chocolate, food preparations with cocoa, n.e.s.	22	121	5.6
[122] Tobacco, manufactured	3	105	38.7
[553] Perfumery, cosmetics or toilet prepar. (excluding soaps)	57	217	3.8
[571] Polymers of ethylene, in primary forms	112	136	1.2
[661] Lime, cement, fabrica. constr. mat. (excluding glass, clay)	57	110	1.9
[716] Rotating electric plant & parts thereof, n.e.s.	47	161	3.4
[718] Other power generating machinery & parts, n.e.s.	595	619	1.04
[761] Television receivers, whether or not combined	7	324	48.4
[772] Apparatus for electrical circuits; board, panels	60	106	1.8
[775] Household type equipment, electrical or not, n.e.s.	43	113	2.6
[781] Motor vehicles for the transport of persons	31	221	7.2
[784] Parts & accessories of vehicles of 722, 781, 782, 783	73	100	1.4

On the other hand, because of internal economic problems and international political confrontation Ukrainian foreign trade with Russia significantly decreased (see table 4). We use the data provided by the State Statistics Service of Ukraine (http://www.ukrstat.gov.ua/). Despite the data already is provided without the Crimea and Sevastopol (and in 2015 also without uncontrolled territories in the South-East), some incomparability across the periods remains. In 2013 Donetsk and Lugansk accounted for 5.3% and 2.4% of total Ukrainian imports. Nowadays only part of these regions is under the Ukrainian government control, on the other hand Kyiv-city nominally accounted for 34.7% Ukrainian imports, but in reality part of it were for other regions. Also statistics for Ukrainian regions is provided regardless foreign exporting or importing countries. Thus we adjust for territorial integrity changes only roughly.

Table 4 Bilateral foreign trade of Ukraine with Russia

Year	Exports, mln dol	Imports, mln dol.
2013	14787	23098
2014	9798	12700
2015, I quarter	1044	1448
2015 forecast (adjusting for seasonality and territorial factor)	5000	6700

Thus only in the Ukrainian market (partially because using political confrontation approach and partially because of internal economics and political trends in Ukraine) the losses of Russian Federation were about $10 bln in 2014 and will be about $16 bln in 2015 in its exports revenues and about $5.5 and $6.5 bln, respectively, in trade balance surplus (we should mind that implementation of the DCFTA will start only since 2016). This is several times larger than our estimates of possible losses of Russia because of the EU-Ukraine DCFTA implementation. Moreover our estimates of the latter based on 2013 show rather upper limits because of decrease of mutual trade between Russia and Ukraine in 2014 and 2015.

Besides deterioration of Russia's image, trade conflicts, destruction of infrastructure, decrease of purchasing power of population, one of the mechanisms of transmission of internal problems and external factors into decreasing Russian exports in Ukraine is devaluation of hryvnia (it also increases price competitiveness of Ukrainian exports in the EU market). We used the data of the National Bank of Ukraine (http://www.bank.gov.ua/control/uk/publish/article?art_id=65162&cat_id=36674) and the Central Bank of Russia (http://www.cbr.ru/statistics/) to calculate bilateral real exchange rate of Ukrainian hryvnia to Russian ruble. In January 2014 – April 2015 this exchange rate decreased by 14% (nominal devaluation was 40%, but higher inflation in Ukraine partially offset it). This is several times larger than tariff preferences for Ukrainian or the EU exporters in their mutual trade. But we must admit that the effect of hryvnia devaluation may have only middle-term effect.

We also must mention the large losses of Russia because of sanctions and worsening its image as a reliable and predictable partner. E.g. Russian central bank has lost more the $150 billion dollars in reserves. Foreign investment and opportunities for borrowing decreased. Energy and defense companies have problems with importing key technologies (Ruptly (2015)). GDP growth in 2014 slowed down to 0.6%, and is expected to be -3.8% in 2015. Total exports of goods and services decreased by 1% (after growth in previous years), imports decreased by 6.6% raising inflation to 11.4% (International Monetary Fund World Economic Outlook Database April 2015 http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/index.aspx).

5. Conclusions

To sum up, our research work provides the evidence in favor the presumption that economically the EU-Ukraine DCFTA is only a minor challenge for the Russian economy. Even though some minor exports may face negative impact, this is a normal practice, when any FTA is established. An additional option to avoid possible trade diversion effect for Russia is to establish a similar FTA with the EU. Before it happens Russian exporters may also choose to invest in Ukraine to benefit from the EU preferential treatment.

At least the negative economic consequences of the EU-Ukraine for Russia are substantially less that the losses caused by using hard approach to Ukraine. Thus it is a political decision rather than an economic one of Russian authorities, which wishes to see Ukraine as a member of its own regional economic bloc. But return to non-confrontation regime in international political and economic relations can be mutually beneficial for Ukraine, the EU and Russia.

Cross-membership of such a relatively big country in the region as Ukraine in both the CIS FTA and DCFTA with the EU may be a unique framework for Europe. Under the scenario, which envisages territorial integrity, sovereignty, security of Ukraine are guaranteed, the AA and DCFTA effective implementation is under doubt.

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PAPER

An International Public Goods Perspective upon China's Resource Governance: the Function and Invalidation of REO(rare earth oxide) Economic Diplomacy

Yan Zhanyu • Wang Hongyu • Li Hongjia

Abstract The defeat of China's REO lawsuit in WTO reflects the worsening international environment of China's REO trade and failure of China's REO economic diplomacy. REO trading system under the WTO framework is essentially an international public goods provided by both REO consuming and supplying countries. China and Western countries are assumed the responsibility of providing material and normative public goods. However, China's high cost of providing public goods and profit outflow resulted in China's practical dilemma in REO trade. Although China's economic diplomacy committed to reverse this imbalanced situation, due to the block between capability and power conversion, the dominance of REO resources in China failed to translate into a trade advantage, thus proclaiming the failure of REO economic diplomacy and leading a more serious imbalance.

Keywords REO - International REO trading system - International public goods National power - Economic diplomacy
JEL Classification F50 - Q34 - Q37

On March 26th 2014, WTO judged in first instance that China's REO export restriction policy violated WTO's principles of free trade, and ordered China to stop trade protection policy in REO export.[1] Although China's diplomatic tug of war in the WTO has not ended, China's REO export policy adjustments have been inevitable. China's defeat in the WTO lawsuit means that China failed to maintain its dominant position in the international REO trade. China's REO economic diplomacy suffered

1 Li, G. (2014): 李光磊《WTO稀土案中国"一□"□□或引□行□市□化松□》,(*CHINA's defeat in the first lawsuit in WTO may arise a loosen industrial policy,;* in Financial Times, (2014):may)

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a major setback, and we need to rethink the rationality and effectiveness of economic diplomacy strategy urgently. China owns monopolistic resources in the international REO trade, but China has not been matched to the interests compared to its capability. in recent years, China has been trying to minimize its own loss by executing specific export quotas, but limited by WTO principles of free trade, China could no longer continue to implement such restrictive policies. China's REO Economy diplomatic confronted failure , leaving a serious threat to China's national interests.

In recent years, along with the continuous heating of international REO trade, frictions among China and foreign states have been more frequent, and thus researches on China's rare earth trade became increasingly enriched in academia. By analyzing trade datas, some scholars came to the conclusion that China's current Rare Earth Industry existed following contradictions: low added value, serious environmental pollution and imbalances in the international reserves and mining structure. [2]And they found the reasons why the REO price was too low and why we lacked international competitiveness were that our understanding of REO price determination mechanism was inadequate and our domestic rare earth market was far from perfection. [3]Foreign scholars placed China's rare earth monopoly characteristics in worldwide as the starting point. They attributed China's REO trade issues, from an economic supply and demand perspective, to the profit-driven behaviors of enterprises.[4] However, all these researches only focused on economics and trade disciplinary, few scholars underlying the causes in a deeper point of view, such as international strategy or economic security, let along seting economic diplomacy as the core to resolve the plight of China's rare earth trade exposition.[5] Therefore, it is high time that we pursued economic diplomacy as the path to analyze the status of China's rare earth trade and explored the implicit contradictions behind the veil.

From the roots of study, the essence of rare earth trade issue is the reflection of globalized resource allocating contradiction, and so it's reasonable to use resource diplomacy as the path to understand, analyze and resolve the disputes in REO field. Current researches on resource diplomacy have had some successes. Some scholars gave the connotation of resource diplomacy from an power politics perspective, and

2 Guo, M., Jia,Z., Liu,C., Dong,J. and Zhang, C. (2009):郭茂林、□志琦、刘翠玲、董建忠、□□《中国稀土□□□状及□略安全的几点建□》(The feature of China's REO industrial security and several suggestions,; in Sci-Tech Information Development & Economy，(2009):32，pp. 95—98)

3 Li, H. (2011): 李□：《我国稀土出口定价□□□探析》(Reseach on REO export pricing power of China,; in China Business & Trade, (2011):6, pp.213—214); He, J.(2011):何家□：《我国稀土价格波□的特点及成因分析(The fluctuation of China's REO pricing and its causes,; in Price:Theory & Practice, (2012):2, pp.42—43); Wan, Y. (2011): 方玉泉：《稀土价格形成机制初探》(Analysis on REO price forming mechanism,; in Northern Finance Journal, (2011):12, pp.51—53.)

4 NabeelA. Mancheri: *Chinese Monopoly in Rare Earth Elements: Supply- Demand and Industrial Applications,* China Report2012 48: 449, Jan 18, 2013,pp.449-468.

5 Li, B.(2004): 李宝林：《新世□前中国"□源外交"透□》(Retrospect on China's new century resource diplomacy,; in Natural Resource Economics of China, (2004):5, pp.9—11); Zhu, F.(2006): 朱□：《中国的□源外交尚需大智慧》(China needs more diplomatic wisdom in resource diplomacy,; in China Rare Earth Information, (2006):6, pp.35—37); Jiang, S. and Su, W. (2011): 江升、□文：《当前国□形□下的中国外交□源构想》, (Depiction of China's diplomatic resources at the present international environment,; in International Journal of Mining Science and Technology, (2011):s1, pp.8—10)

detailedly depicted the differences between resource diplomacy and diplomacy in general.[6] And then, starting with the utility of resource diplomacy and synthesizing the current situation of China's comprehensive resources and results of practice by foreign countries, scholars tried to envisaged the top-level design of China's resource diplomacy. The only drawback is, however, that the focuses of resource diplomacy were too complex, covering many aspects like economic, trade, geography, science and technology. And the analysis has put too much weight on the efficient use of resources and trade geography changes, making the overall study showing a polarized trend, which is either too microscopic or too macroscopic. Consequently, previous researches lack systemetic integration and theoretical support, leaving serious fragmentation in the demonstrations. In view of this, this paper selects international public goods theory as the approach to analyzing China's rare earth trade issue, attempting to integrate issues into a theoretical framework under an economic diplomacy background, only hoping to explore ways to solve the problem.

The international public goods perspective this paper selected has been widely applied in the field of economics and international political economy (IPE), and academic researches on international public goods mainly focused on the reinterpretation of international monetary and trade system and environmental issues, providing an analysis paradigm of the theory through the process of public goods supplying, cost – profit relationship and inherent contradictions.[7] However, when it came to the application of international public goods, scholars discussed more theoretically than practically, and more confined to the macro-level perspective, lacking in attention to the meso-and micro-phenomena.

Therefore, we synthesized previous researches of rare earth industry and current grim situation China's rare earth industry faced, under the grand theoretical background of economic diplomacy.We will try to analyze the reasons for the failure of China's REO economic diplomacy. Based on the international REO trading structure, the first part of the paper will assess the effectiveness of REO economic diplomacy in strategic level, thus clarifying the economic diplomacy nature of rare earth industry issues. Furthermore, in the second part we will select international public goods theory as an analytical perspective, in turn to demonstrates the international public goods nature of international REO trading system, the supply and demand contradiction of international public goods among states and the profit model of China's behavior in the international REO trading system. By an analogy with the evolution of the Bretton Woods system, we will come to the theoretical explanation of the failure of China's REO economic diplomacy which is due to the cost and profit imbalance while providing international public goods. In the third part, we will integrate the "current international REO trading structure" from the first part and the "supply and demand imbalance in international public goods "from the second part to analyze the specific cause of China's failure in

6 G. O. Gutman: *Resources Diplomacy*, The Australian Quarterly, Vol. 47, No. 1 (Mar., 1975), pp. 36-50.
7 Pang, X. (2012): □珣：《国□公共□品中集体行□困境的克服》, (Overcoming the predicament of collective action in international public goods,; in World Economics and Politics, (2012):7, pp.25—27); Li,X. and Xi, Y. (2011) : 李新、席□□：《国□公共□品供□□□研究□述》, (Analysis of the providing of international public goods,;in Economic Perspectives, (2011):3, pp.132—137)

REO economic diplomacy. During the analysis we will use the concept of capability and power conversion in economic diplomacy discipline to analyze the crux of the imbalance, which are conversion channels, approaches, effectiveness and focus, etc. Finally we'll come to the conclusion that only by reshaping the pattern of China's REO economic diplomacy, can the cost-benefit imbalance in international REO trading system be corrected, thereby maintaining the security of resources and realizing national interests.

1. REO Economic Diplomacy: Trump or Chronic Poison?

1.1 China's Dilemma in REO Trade

REO as the most important strategic resource in the world, the ratio of its global distribution and exploitation is extremely imbalanced. From the view of the world's proven reserves in 2011, China ranks first in the world, accounting for 36% of the world reserves; Russia ranks second, accounting for 19%; United States ranks third, accounting for 13%. Judging from the exploitation, 97% of the world's REO supply are related to China's exports, and in 2013 China's REO exports accounted for almost 91% of the world's REO trade.[8] Compared with China, if 87 rare earth mines in United States all came to production, it would meet the world's REO commercial needs of approximately 280 years.[9] But United States in 2002 closed all the mines on the grounds of environmental pollution, including the world's largest Mountain Pass mine.

China is the only county who supplies REO products in different levels and varieties. Since China introduced the REO development guiding principle "let the water flow " in 1981, it became common to export rare earth regardless of the cost.[10] Since 1984, China's rare earth production and exports continued to rise, while other countries continued to decline. In the international REO market, China was gradually replaced the United States as the world's "oligarchs" in REO supply .(Figure 1) The average share of China's rare earth production accounted for around 90% of world's production. (Table 1) In 2013, for example, China's rare earth production accounted for 91% of the world share, export volume ranking first in the world, of which 48% were for export, accounting for more than 53% of international REO trade.[11]

Figure 1 Int'l environment of China's REO industrial

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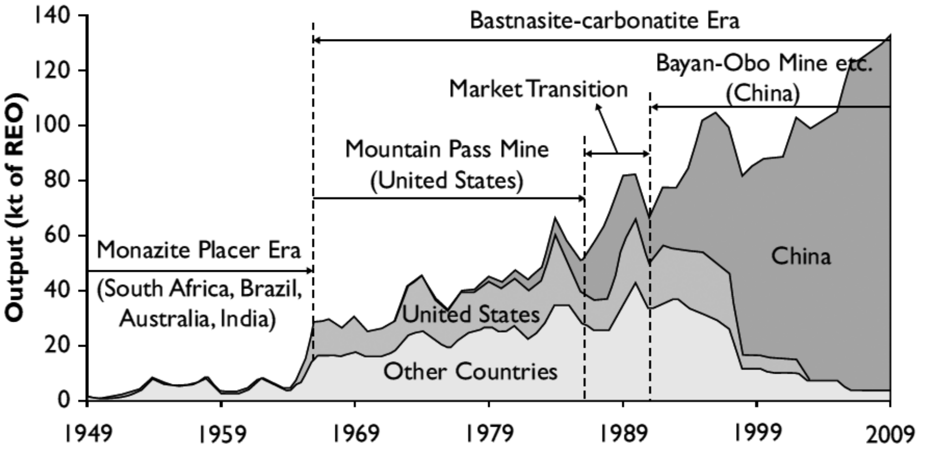
8 Zhang Shujing: *Problems and Countermeasures of Rare Earth Industry in China,* Canadian Social Science, Vol. 9, No. 3, 2013, pp. 9-14.

9 For more detailed information of US REO industrial, see Sun, Z.(2010): □章□：《美国稀土生□、□□与□易研究》, (Research on US REO manufacture, reservation and trade,; in Finance and Economy ,(2010):12, pp. 27—29)

10 *Let the water flow* means that in 1981 China formulated a guiding policy in energy and resource industrial, when the market economy reform boomed, which aimed to export regardless of environmental, ecological and security costs . For detailed researches , see NabeelA.Mancheri: *Chinese Monopoly in Rare Earth Elements: Supply- Demand and Industrial Applications,* China Report2012 48: 449, Jan 18, 2013,pp.449-468.

11 Liu, X.(2014): 刘小芳：《2013年我国稀土主要□品出口□状》, (Present feature of China's REO export in 2013,; in China Rare Earth Information, (2014):2, pp.20—32)



Resource: Centre for Strategic and International Studies, 2010.

Table1 2009-2013 Global REO production (t)

Year	China	USA	Brazil	India	Australia	Russia	Malaysia	Others	Total	China / Total
2009	129000	—	550	2700	—	—	350	—	133000	97.00%
2010	130000	—	550	2800	—	—	350	—	133000	98.00%
2011	105000	—	250	2800	2200	—	280	—	130000	81.00%
2012	95000	7000	300	2800	4000	—	350	—	110000	86.00%
2013	100000	4000	140	2900	2000	2400	100	—	110000	91.00%

Data Resource: US Geographical Survey

However, China's "oligarchs status" did not bring about discursive power to China in rare earth trade. Since 21st century when China monopolized the REO exploration and export of the world, China has been unable to decide on production, exports and prices of rare earth. From 1990 to 2005, Chinese REO exports grew nearly 10 times, but the average price was shrinked by 60%. [12]Taking the important military material cerium carbonate for example, in July 2012 the price of rare earth carbonate in Baotou was 68,000 yuan / ton, while in July 2013 the price dropped to 27,000 yuan / ton, down 60%, with China's macroeconomic regulatory fatigued and weak.[13] As the world economy in the field of high-tech and military industry is heavily dependent on China's exports of rare earths, so whenever China attempts to control prices or reduce the quota, other stakeholders tend to unite to oppose or even threaten to retaliate, compulsing China to make compromises. In addition, Chinese domestic exporters often export disorderly without consideration of environmental costs and compete viciously, the consolidation of domestic rare earth industry is extremely difficult. Consequently, China

12 Li, X.(2012): 李□莉：《□狂的稀土》, (Crazy rare earth,; in China Small & Medium Enterprises, (2012):1, pp.42—43)
13 Han, H.(2014): □□明：《2014年中国稀土面□□峻挑□》, (China faces severe challenges in REO field in 2013,; in China Nonferrous Metals News, (2014): Feb. 27, Vol.7.)

suffers both at home and aboard in world REO market, resulting in pricing sidelined. Although China has actively pursued export quota as counter measures, in fact this can not prevent massive outflow of domestic rare earth resources. Instead this will cause rampant resource smuggling.[14] So far, China is still blocked in predicament, and trade disadvantage has not improved yet.

1.2 The Failure of China's REO Economic Diplomacy

On the one hand, China's rare earth resources outflow to the world at low price, and China has no right to decide the price; on the other hand, China has dominated the world's REO supply, and then can strategically manipulate the market by particular export restrictions, shaping REO export as one leveraged for other international issues, promoting the realization of national interests. In this sense, China's REO economic diplomacy will accomplish much. Current understanding and academic researches on China's REO economic diplomacy are mostly optimistic, and the basic point is: China owns the world's most scarce resources, and the world's rare earth market exhibit a typical seller's market nature. China should take advantage of this opportunity to fight for its national interests, relying on resources for long-term strategic benefits.[15] Many foreign scholars have pointed out that China's exports of rare earths "was a trump for China in the 21st century." Yoichi Sato from Mitsui Group in Japan believes that China's rare earth trade will not only be able to give a chance to national prosperity and development of high-tech industry, but also to force foreign companies to move its high-tech factories into China for rare earth quotas, with China to achieve its industrial upgrading.[16] Rare expert Jack Lifton believes that China will likely intimidate or threaten other countries for the world economic position, especially for relative advantages of foreign trade by executing rare earth quotas.[17]

However, we think that China's dominance in the rare earth field is only in form, and such a nominal dominance will not give China the corresponding interests, but make China distress in international trade. From a long-term perspective, China's REO economic diplomacy is in great uncertainty and such kind of view that China's economic

14 For detailed researches on rare earth smuggling, see Cao, C. and Dong, X. (2010): 曹昌、董□苹：《稀土！稀土！》(Rare earth!! Rare earth!,; in China Economic Weekly, (2010):36.); Nabeel A. Mancheri: *Chinese Monopoly in Rare Earth Elements: Supply- Demand and Industrial Applications,* China Report2012 48: 449, Jan 18, 2013,pp.449-468. The export of REEs through normal channels is 50,000 tons in 2009, and the smuggling of REEs is over 20,000 tons. The smuggling takes about 40% of the normal exports.

15 Related discussion, see Guo, M., Jia,Z., Liu,C., Dong,J. and Zhang, C. (2009):郭茂林、□志琦、刘翠玲、董建忠、□□《中国稀土□□□状及□略安全的几点建□》(The feature of China's REO industrial security and several suggestions,; in Sci-Tech Information Development & Economy, (2009):32 , pp. 95—98); Liu, Y.(2007):刘余九：《中国稀土□□□状及□展的主要任□》, (Current situation of China's rare earth industry and its main task,; Journal of the Chinese Rare Earth Society, (2007):3, pp. 257－263); Wang, J. (2011): 王珺之：《中国稀土保□□》,(China Rare Earth Battle, Beijing: China Economic Publishing House, (2011))

16 英媒：稀土成□中国□□武器》,(New York Times, rare earth became China's economic weapon,; in China Powder Industry, (2009):2, pp.37—38)

17 Cao, C. and Dong, X. (2010): 曹昌、董□苹：《稀土！稀土！》(Rare earth!! Rare earth!,; in China Economic Weekly, (2010):36.)

diplomacy can gain the access to long-term strategic profits is unrealistic.

First, the monopoly of China's rare earth resources has a clear time limit. It is estimated that China's rare earth reserves in 1996-2009 dropped 37%. Although after 2010 China increased its rare earth mineral exploration, making China's rare earth reserves reach another peak in 2013, it was still unable to meet the world growing demand for rare earths.[18] At the current production rate, China's medium and heavy rare earth reserves can only maintain 15 to 20 years and by 2040-2050 China has to import rare earth to meet domestic demand.[19] On the contrary, potential rare earth exporters like United States, Russia and Mongolia have always taken a frozen strategy. In terms of the long term supplying , the world's dependence on China's rare earth exports is relative, and China does not have the absolute dominance.

Secondly, the current development model of China's rare earth industrial is not sustainable. Rare earth mining are heavy polluting industries. The cancer rates among villagers and the proportion of livestock distortion in Bayan Obo mine are terrifically high.[20] Su Bo, vice Minister of China's Ministry of Industry and Information Technology once revealed that, it required 300 billion yuan to control the pollution in Ganzhou Rare Earth Mine, far exceeding the total earnings.[21] China's rare earth export overdrafts environmental interests and this will ultimately act on the economic development chain. As a result, national interest will incalculable suffer losses.

Therefore, China's current REO economic diplomacy has not matched with REO trading. academia and government expect too much on REO economic diplomacy, and there is also a misjudgement between reality and target, coupled with the deviant implementation of existing policies. China's present failed REO economic diplomacy will mislead China into "a predicament of scarce resource", eventually resulting in a double failure of trade and diplomacy.

2. The Essence of REO Economic Diplomacy

2.1 REO Trading System: An International Public Goods

In domestic politics, national security, public order provided by government are public goods. With the development of globalization, interdependence in different areas among countries enhanced and domestic problems spillover, showing an international trend. When one country alone can not deal with complex issues, multinational cooperation is imperative, which spawned a variety of international public goods. International public

18 Butler, Charles J. :*Rare Earth Elements:China's Monopoly and implications for U.S. National Security,*The Fletcher Forum of World Affairs,38.1 (Winter 2014): 23-39.

19 Xue, M. and Qi, Y.(2010): 薛牧青、□云□：《中国□当如何善待稀土□源》, (How should China treat REO researches friendly, in Youth Reference, (2010): Nov. 09.)

20 Xie, C.(2008): 解□□：《四箭□□整□稀土开采乱象》, (Four measures to recomfile the chaos in exploiting REO,; in International Business Daily,(2011):Aug. 25.); Related researches on rare earth pollution can be found in Inner Mongolia Hefa Rare Earth Company：《内蒙古稀土企□生□及□染治理状况（上）》, (Inner Mongolia Rare Earth production and pollution control status (I),; in China Rare Earth Information, (2008):10, pp.6—8)

21 Yang, Y., Liang, J. and Li, M.(2012):□□、梁倩、李美娟：《工信部称稀土□染代价触目惊心》, (MIIT said the pollution of rare earth was shocking,; in Economic Information Daily, (2012):Apr. 09.)

goods are often immaterial, mostly demonstrated as different kinds of rules, agreements and cooperation mechanisms.[22] "Kyoto Protocol" designed to control carbon dioxide emissions in Environmental area, Reporting system for disease control and prevention in World Health Organization and free trade principles under WTO framework are all within the scope of international public goods.[23]

From the theoretical point of view, whether a product or service is public good, we need to inspect whether it has two major characteristics, that is, non-exclusive and non-competitive in consumption.[24] The principle of non-discrimination in WTO framework known as MFN gives countries an equal opportunity to trade and compete, where each country has the right to interact free trade with another with no prejudice to other countries. To this degree, non-exclusive and non-competitive can be guaranteed in the trading system. As an important part of WTO free trade framework, the REO trade system also has attributes of international public goods. In REO trading practice, countries need to cross borders to interact outside the domestic laws, to negotiate rules governing the behavior of REO trade and to set norms to resolve trade disputes. When the criterion for trade are default or established, countries are able to comply with the norms to reduce transaction costs and trade friction. Therefore, REO trading system is essentially an international public goods.

Unlike domestic public goods providing, there is no governmental authority to provide public goods in the world, thus the providing subject has characteristics of diversification.[25] International public goods are not provided by single country, but rather relies on the collective action of all countries. As an international public goods, the providing subject of REO trading system consist of two group of actors: REO providers and REO consumers. States confirm trade rules, stabilize supply and demand relationship and resolve trade disputes through trade, after wihich a tacit trade regime under the WTO framework eventually forms. The characteristics of current REO trading system are: China as the only major rare earth supplier meets world REO demand through exports , acting as a stabilizer in supply and demand relationship, providing international public goods from the material point of view; Meanwhile, the United States led WTO rules, in essence, highly consistent with the interests of the developed countries, consuming countries like Japan and US acting as rule makers and referees. China and Western countries exercise a clear division of labour when providing international public goods, but consume obviously unevenly in the international public

22 Wang, Z.(2007): 王□：《全球公共□品与多□□易体制改革》, (Global public goods and reform of multilateral trading system,; in Productivity Research, (2007):16, pp. 89-90)

23 For a detailed discussion of international public goods, see Pang, X. (2012): □珣：《国□公共□品中集体行□困境的克服》, (Overcoming the predicament of collective action in international public goods,; in World Economics and Politics, (2012):7, pp.25—27); Li,X. and Xi, Y. (2011) : 李新、席□□：《国□公共□品供□□□研究□述》, (Analysis of the providing of international public goods,;in Economic Perspectives, (2011):3, pp.132—137)

24 Wang, Z.(2007): 王□：《全球公共□品与多□□易体制改革》, (Global public goods and reform of multilateral trading system,; in Productivity Research, (2007):16, pp. 89-90)

25 For a detailed discussion on the subject of international public goods, see Qin, Y.(2006): 秦□：《□公共□品的本□——兼□公共□品理□的局限性》, (On the nature of public goods - On the limitations of the theory of public goods,; in Economist, (2006):3, pp. 77—82)

goods consumption structure. Along this logic, both providers and Consumers together maintain an unstable international REO trading system.

2.2 The Cost – Profit Imbalance: China's Dilemma in REO Trading System

Cost – Profit is the core issue that international public goods providers should consider, and the cost – profit imbalance will affect the provider will to continue to provide. In the domestic domain, the cost one government would spend when providing public goods is a series expenses including social security, defense, bureaucracy and other expenses incurred to maintain state apparatus, and its profits are public recognition to government's legitimacy and obedience to authority.[26] If and only if the profits overweight the costs, the political rule is considered valid, on the contrary, if imbalance occurs between costs and profits, state will face crisis and soon decline. Impact of this imbalance is more prominent in the international arena. For instance, the US-led Bretton Woods system in the first 20 years after WWII played an important role in maintaining stable exchange rate and international balance of payments, and of course it was a typical example of international public goods. The United States as a major provider of international public goods, its behavior was affected by the cost – profit relationship. In the early system, the U.S. dollar with its gold reserves and credit guaranteed the operation of the system, as providing public goods for the world, then U.S. dollar jumped to the International Monetary and thus stimulated the U.S. foreign trade to flourish. In this case the profits of providing public goods outweigh the costs, so the United States' willingness to provide was high. However, due to the inherent design flaws of the Bretton Woods system - Triffin dilemma, in the latter system, when the world's fortune continued to accumulate and fixed amount of dollar could no longer pay off large international trade, the United States had to assume a greater credit and gold outflow risk. At this point, the cost of the United States to provide international public goods was far higher than the profit , with imbalance between the two, the United States' willingness to provide sharply decreasing. Finally in 1971, the United States announced that the dollar and gold decoupling, which declared the collapse of the Bretton Woods system.

As for providing REO trading system, countries still comply with the logic of cost and profit balance. Due to the instability of the REO international trading system, there exists a serious imbalance between the costs and profits amongst rare earth consuming countries and supplying countries. And the REO trading plight China confronted now is the reflection of this imbalance.. For China, providing stable rare earth material as input to the REO trading system, the cost is too high to pay, including the loss strategic resources, low rare earth prices and serious environmental pollution. In contrast, the profit is minimal. On the contrary, other rare earth consuming countries, whose main costs are only the maintenance of original WTO rules and judgment of violations. Moreover, as long as consuming countries could ensure sufficient damand of rare earth to stabilize the supply and demand relationship, REO trading system will be maintained. In the process of providing international public goods, the profits of these countries far

26 Cheng, H. and Guan, L.(2002): 程浩、管磊：《□公共□品理□的□□》, (Understanding of public goods theory,; in Journal of Hebei University of Economics and Business, (2002):6, pp. 10-17)

outweigh the costs. This is why western countries strongly oppose China to modify the rule or implement export controls. At present, China faces serious cost – profit imbalances, and if China continues to provide international public goods , it will only bring serious loss to itself.

In Post-Bretton Woods system era, U.S. continued to provide international public goods to the world known as Jamaican system by cancelling dollar-gold linked system and implementing floating exchange rate. The amended international monetary system corrected the cost – profit imbalance when US providing the international public goods, and through the devaluation of U.S. dollar and the conduction of floating exchange rate, US reduced its responsibilitiesby by shifting part of them to other countries. The result was that the cost to maintain international monetary system reduced while willingness to continue to provide public goods increased, without any doubt, up till now US still benefiting from such system. China is also facing the dilemma of cost – profit imbalance and lowering providing willingness, so taking national interests into account, only by reducing the providing cost as well as promoting profits, will China reverse such an imbalance and achieve sustainable development in REO trading system.

2.3 Earning Profits from REO Trading System: Economic Diplomacy's Function in International Public Goods

The purpose of the REO economic diplomacy is to achieve, extend and protect the interests in REO trading process, however China's current economic diplomacy not only failed to realize interests, but also made itself in an adverse situation where interests were under threat and the risks of credit loss increased. This result is totally contrary to the original intention of China's REO economic diplomacy, and the reason is that the imbalance of international public goods supply and demand offset the expected utility of economic diplomacy, leaving a giant gap between practical profits and expected returns. In a word, the providing cost is too high while profits sink, and this ultimately impedes China from earning profits in the international public goods.

However, China's frustration in REO trade can not be attributed solely to economic diplomacy, and the effectiveness of economic diplomacy in the trade should not be questioned either. We believe that in the current REO international trading system, the essence of REO economic diplomacy is an approach that helps to earn profits from international public goods. Its role is to associate "providing international public goods" with "consuming international public goods" ,and decide to what degree can "consuming international public goods" be achieved.

From an interest point of view, the national purpose to provide international public goods lies in that states have the potential to earn much more profits than its providing costs. Consuming public goods is where the national interests exist and thus the will whether one state would like to provide is closely related to how much it may earn from the public goods. Nevertheless , the process from providing to consuming is not spontaneous, that is, providing international public goods does not necessarily bring about consumption. The reason is that international public goods are not provided by single state, and the division of labor and diversified provision will undoubtedly grant those normative providers some advantages over material providers. The result is the realization of national interests of disadvantaged states often need to be recognized by advantaged states. In this pattern, an act of state has become the key factor to break through this limitation, that is, states can contributes to recognition of its own providing and consuming behavior and determines the scale of its interests, and economic diplomacy is accordingly a vital approach to accomplish that. For example, China by exporting large amount of rare earth resources realized its international public goods providing. Based on export dominance position, China's interests were to have the pricing powers as well as rule-making right in REO trades. But the reality is that China's interest demands was strongly opposed by western countries. Due to the division of labor between China and western countries and existing differences in the providing process, although China did provide international public goods, consumption was restricted. In order to achieve the targets of earning profits, China has actively carried out various forms of economic diplomacy, such as rare earth export quotas, export controls, economic and political problems linkage and other means in order to achieve its own interests. Hence, the essence of the current REO economic diplomacy is an approach to earning profits from international public goods, or specifically, from international REO trading system. its principle is to build bridges between "providing " and "consuming" and decide the "width" of the bridge – the degree of profits. China's defeat in REO economic diplomacy at present is the problem of such bridges, and with those uncompleted bridges , China's national providing behavior could not efficiently transformed into profits, appearing the imbalance feature in REO trades.

3. Root Causes of China's REO Economic Diplomacy Failure

To achieve sustainable development of REO trading system, the premise is that the cost – profits imbalance in international public goods providing can be eased. However, as the main international public goods provider and the biggest victim of imbalance, China's diplomatic efforts to ease the imbalance were very constrained. The key of China's REO economic diplomacy is to change its role in the process of proving international public goods, that is to say, China should not merely just provide material goods but be a complex provider who contributes both material and normative goods, and by adjusting rules to compensate for its own insufficient profits. The conversion from material to normative providing is essentially a conversion from capability to power. We argue that the reason why China can not be like the United States to correct imbalances in the late Bretton Woods system is rooted in the failure of conversion between capability and power .

3.1Channel Block between Capability and Power Conversion

China's REO economic diplomacy is largely constrained by domestic political process to a great extent, and the competition between national interests and enterprise interests blocked the conversion channel from capability to power. China's capability in the field of rare earth trade mainly embodies the current monopoly of rare earth exports, but the actual participants in the rare earth trade is not state, but a number of rare earth enterprises. Unlike states, the issue enterprises concern about is not earning profits for states when providing international public goods at strategic level. What they will pay attention to is how much profits they may actually gain by doing business. State and enterprises will inevitably diverge upon the question "What will capability converse to eventually?", henceforth there exists a competition between state and enterprises on how to deal with REO resources. Enterprises argue that relying on abundant rare earth resources and brisk international demand, it is a wise choice to export in small profits but quick turnover. Meanwhile, current Chinese rare earth trade policies adapt to the development of enterprises and export at lower price will bring them low costs and high profits. That is why enterprises are indifferent to the conversion between capability and power. In contrast, at the national level, unlike enterprises' simple pursuit for economic profits, state's concern are strategic interests such as the reservation of scarce strategic resources and the struggle for rule-making power, and the core goal of China's REO economic diplomacy is to generate power based on capability. The differences between goals become a obstacle between the conversion and the divergences between practical operation and strategic design hinder the operation of economic diplomacy. Consequently, economic diplomacy lacks fundamental source of dynamics.

Meanwhile, foreign speculators' illegal behavior aggravated the blocking. To solve the problem that state and enterprises compete for profits, Rare Earth Industry Office and Industrial Coordination Division under National Development and Reform Commission, along with Ministry of Land and Resources (MLR) has long been committed to improving enterprises' short-sighted behavior. For example, National Development and Reform Commission has promulgated "Limited land project directory" and "Ban land project directory" to regulate the behavior of rare earth mining enterprises;[27] issued "on the control of some high energy consumption, high pollution and resource based products export notice", to strictly limit over-exploitation of rare earth resources.[28] MLR released "China Mineral Resources Report" every year, with particular emphasis on the management of specific minerals such as rare earths.[29] However, the state's regulatory policy has led to large-scale smuggling, and bolstered rare earth enterprises to compete with state underground and conflicts between intensified. Foreign enterprises took

27 National Development and Reform Commission, People's Republic of China:《关于□布□施<限制用地□目目□（2006年本）>和<禁止用地□目目□（2006年本）>的通知》, (*Notice on promulgating "restrict land for the project directory (2006 version)>"and "prohibited land for the project directory (2006 version)"* ,2006, Dec.30.)

http://www.ndrc.gov.cn/zcfb/zcfbqt/200612/t20061230_497022.html, logging on 2015, Mar. 15.

28 National Development and Reform Commission, People's Republic of China: 《关于控制部分高耗能、高□染、□源性□品出口有关措施的通知》,(Notice on the control of some of the high energy consumption, high pollution, resource products export of relevant measures), 2005,Dec.14.),

http://www.ndrc.gov.cn/zcfb/zcfbtz/200512/t20051214_53372.html， logging on 2015, Mar. 15

29 Ministry of Land and Resources of the People's Republic of China:《中国□□□源□告2012》,(China Mineral Resources Report 2012), 2013, Nov. 29.),

http://www.mlr.gov.cn/zwgk/qwsj/201305/t20130502_1210124.htm， logging on 2015, Mar. 15

the opportunity to increase their speculative efforts while importing from China, this causing serious damage to the China's state power building, and offsetting the effect of REO economic diplomacy.

The implementation of REO economic diplomacy cannot be without the involvement of enterprises for which they are the cells of national economy. Either neglecting or rejecting enterprises' interests will undoubtedly lead to the failure of economic diplomacy. Therefore, how to rationalize the relationship between the state and enterprises, taking enterprises' interests into account in the power conversion process, eliminating enterprises' opposition against state policies , guiding enterprises to develop sustainably, and coordinating enterprises' and state's interests will will be the key to lubricate the conversion channels.

3.2 Approach Invalidation between Capability and Power Conversion

In REO Economic diplomacy China tried to use its resource dominance to intimidate and deter the consuming countries, hoping to change the rules of REO trading system, but with little success. The essence of the problem is that China has chosen the wrong approach to conversing capability into power. In the 21st century where globalization and interdependence simultaneously Increased, using power and strength by forcing other states to acknowledge one's interests are no longer seen as smart diplomacy and will not be accepted by the world as well. Conversing by force will fatefully lead to booming hostility and cross-retaliation, and the result is often counterproductive. China once repeatedly regarded rare earth as one negotiating weapon in the territorial dispute with Japan and double inverse survey with U.S. , threatening to terminate or suspend rare earths exports. In 2011 when the quarrel about REO grew most intense between United States and China, China has vowed to intensify REO export quotas in response to US's double inverse survey towards China. China also exercised in the same way to sanction Japan when territorial disputes peaked in 2012. However in early 2012 India REO Limited Company announced that they would set up new plants in India's eastern state Orissa, and rare earth exploration activities would be on agenda off the southern coast of India , which were some correspondences to China's hard-line policy.[30] In the same year, Japan and India signed a memorandum of rare earths import and export, in which Japan would import 4,100 tons annually from India to substitute China, till then Japan's dependenc on China's rare earth falling below 50%.[31] Under the pressure that India restarted to go into production and tough policies of US and Japan , China had put a soft stance, reiterating that China did not want to regard REO as a bargaining tool, and hoping to achieve cooperations with other countries on the use of rare earth resources under a win-win situation. The approach which China hoped to practice related power to improve international environment through economic diplomacy has not received

30 Chinese Industry Research Network: 《2012年印度□大稀土能源生□情况□□分析》,(Investigation and Analysis of 2012 India's expanding energy production of rare earth), 2012, Aug. 23, http://www.chinairn.com/news/20120823/96513.html, logging on 2015, Mar. 15

31 Yao, Z.(2012): 姚姿淇：《印度同意向日出口稀土：日本欲□脱□中国稀土依□》,(India agreed to export rare earth to Japan: Japan tried to get rid of dependence on China's rare earth,; in China Rare Earth Information, (2012:12), p.19)

the expected results.
Therefore, in the process of correcting imbalance while providing international public goods and prompting conversion, such a tough method is not desirable. This is not only because there exist expecting cross-retaliations, but also due to the non-absolute monopoly feature of China's rare earth resources. We believe that China should pursue structural power as the approach to fulfilling the conversion process, namely using its existing capable resources, expanding international cooperation to strengthen mutual trust in the REO trading system, modifying the rules in a progressive procedure and avoiding mandatory deterrence, devoted to build more favorable trading rules. The ultimate goal is to converse its China's own capability into a new system recognized by all countries, and then to gain influential power corresponding to international public goods in REO trading system.

3.3 Low Utility Between Capability and Power Conversion

China's rare earth export is low value-added, and exports of raw materials alone can not reflect the real capability, hence there exists some waste of capability in the process of conversion. When referring to the imbalance of proving international public goods, China's inadequate performance of the core competitiveness is largely to blame. China plays a materials provider role in the REO trading system, but stabilizing international supply and demand and exporting rare earth resources are still to provide basic resources in the final analysis, where the added value of technology is almost zero. According to relevant provisions of international and domestic conventions, rare earth industrial can be divided into three categories: technology in mining, smelting separation and functional applications. As of June 2011, for the mining section, there were 10,293 patents in the world in total, while China accounted for only 24, the ratio was less than 0.3%. But Japan accounted for 25.6 percent year on year and United States accounted for 12.8%. For the smelting separation section, there were 2,833 patents in the world in total, while China accounted for 63, the ratio was 2.2%. For functional application of permanent magnet materials, there were 1452 patents in the world, and China accounted for 465, a ratio of 32.0%; for functional application of luminescent materials, there were 2,994 patents, and China owned 24, only 0.8%. Besides China's Rare Earth technology more belonged to lighting, decoration and other small areas of low-end, but in the high-end display applications such as security, networking and identifying areas, China performed poorly.[32] As a consequence, low value-added exports of rare earths will undoubtedly lead to China's lack of competitiveness and discursive power in the international REO trading system, and will make it deficiently to converse capability into power. This inefficient result is that when providing international public goods, China has more capability than power but unable to fight for profits.

China should raise scientific and technological standards, focusing on deep processing in the rare earth industrial, and should set technical limitations and exporting principles at the time of export, in order to advance the competitiveness of China's rare

32 Qiu, L.(2013): 邱林：《提高稀土高附加□是当□之急》,(Improve the rare earth high added value is a pressing matter of the moment,; in China Nonferrous Metals News, (2013):July,11)

earth exports as well as protect China's exporting security. Meanwhile, compared with environmental barriers abroad, China may wish to set out green barriers for domestic enterprises, taking environmental benefits into account while improving the quality and limit the quantity of rare earth exports, thenceforth augmenting the conversion utility.

3.4 Neglect of Economic Diplomacy between Capability and Power Conversion

Another factor that China's REO economic diplomacy invalidated is that when committed to reversing the international public goods providing imbalance, as long as subjected to the pressure of foreign states, the core concern of China was limited to the facets of trade, economic and resource protection, lacking in a national attention on economic diplomacy. In the face of pressure from other states, Chinese government often came forward to solve the problems by the Ministry of Commerce, the Ministry of Land and Resources and the Development and Reform Commission, while the Ministry of Foreign Affairs took act only as a policy reader, with the initiative being not adequate. However, it is not enough to purely rely on single-level efforts of domestic economy. Currently, in addition to the scholars' devotions around the trade pricing competition, rare earth repository construction, industry associations and other preparations suggested at micro level, China needs more strategic level planning and practice level diplomatic wisdom. The conversion from capability into power is a long period of strategic action, and the ultimate goal is to build and maintain national interests, which will be engaged with other states of the world. Thus diplomatic considerations should be placed in the first place in REO trade decisions, and after all trade and resource interests are just, playing a supporting role, subsidiary interests around diplomatic interests, in which the two can not be inverted.

In the conversion process, it surely is a very difficult task to correct imbalances through diplomatic means. First, China needs to take advantages of the plight of other states's collective action to disintegrate their consistent interests. Specifically, in the REO trading system China should separate major consuming states into different categories and then carry out different policies, and under the WTO principle of non-discrimination, differentiate states's interests and incite their internal arguments by distinguishing the closeness with them. Eventually China will be able to avoid the predicament that consuming states unite to confront China. Secondly, China should avoid free-riding of some countries when continuing to provide international public goods. As the industrial restructuring in emerging industrial countries takes place, their demand for REO will be in large-scale, but their joining in REO trading system will firstly be perceived as the consumption of international public goods, so China should consciously make them share part of the obligations to relieve its stress. Third, China should improve the international bargaining power by preparing the memorandum in advance and selecting professional REO economic diplomats to take the initiative in the international arena, rather than responding passively. In summary, the invalidation of REO economic diplomacy is not just issues of international economic or industrial structure, which cannot be carried out without the participation of diplomacy. When the issues in economy rise to the international level, we will have to introduce diplomatic channels to resolve conflicts. Given the invalidation of REO economic diplomacy in the past decades, it's time that the focus of China's rare earth trade returned to diplomatic level from resource level.

Conclusion

China's REO economic diplomacy suffered setbacks in the WTO negotiations, which reflected the difficult international economic environment China to carry out REO trade and significant deficiencies of China's diplomatic strategy. REO trading system as an international public goods, all the REO consuming and supplying states, while enjoy the trading convenience, keep inputting costs to maintain its operations. Based on resource endowment, technological capability and other differences, states develop a division of labour in the providing of international public goods. China, due to its material provider role, doesn't earn adequate profits in the REO trading system. Owing to the cost – profit imbalance, a large number of profits flow to the normative providers, namely western countries. However, when China seeks to correct the imbalance through diplomatic approaches, the strategic misjudgment and confined execution make it invalid to fully converse national capability into power. And such an invalid economic diplomacy triggers further imbalances. Given the invalidation of the capability and power conversion, China's REO economic diplomacy strategy should make several adjustments: Firstly, we should lubricate the conversion funnel, coordinate interests between government and enterprises and enhance the dynamics of economic diplomacy; secondly, we should alter the conversion approach, get rid of zero-sum thinking model, build structural power, and provide normative international public goods; thirdly, we should bolster the effectiveness of the conversion, extend rare earth industrial chain before export, increase the technology content of rare earth exports, and augment the added value; Finally, we should consider diplomatic channels as the priority to resolve REO trading issues, stress the importance of economic diplomacy, and achieve the overall national interest. Throughout China's rare earth trade in the past three decades, the gap between capability and power is always an obstacle for China to fight for discursive power, and China's weak status in REO trading system is much more like China and third world countries' disadvantaged role in the international work division. However, the plight of the costs and profits imbalance is not permanent. China is in a window period of opportunities to reverse the imbalance , whereby its booming capability, abundant diplomatic resources, improvement of national image and closer linkage with other states. China is likely to gradually eliminate this unfavorable situation by economic diplomacy in REO trade, hence building a new REO trading system that is not only beneficial for China but also compatible with other states. Furthermore, by learning the lessons and experience in REO economic diplomacy, combined with the characteristics of China's overall trade patterns, China may as well transform its international public goods providing model and eventually get rid of its low-end provider role. Along with the expansion of normative international public goods providing, China will be able to match its capability with its power. Ultimately, with realization of national interests, China is supposed to assume more international responsibility, helping to build a new but harmonious international order compatible with both itself and other states, and becomes a responsible and accountable international public goods provider.

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PAPER

Economic Development, Geography, and Trade: Evidence from Russian Regions, 2000-2012

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Abstract This paper deals with the problem of economic growth and spatial development in Russia. It follows a theoretical framework of economic geography in terms of factors of the first and the second nature. According to economic geography, natural resource endowment, transportation costs, distance to markets and population distribution among other factors produce strong influence on economic performance of countries and regions. Using data for Russian regions, we test the effect of these factors on the level of economic development in Russian regions during 2000-2012, when they achieved high rates of growth. Our results support earlier theoretical and empirical findings in several aspects. First, we observe a positive effect of trade on economic growth in Russian regions during the period under review. Second, the first nature factors included as a distance to two main trading partners, Berlin and Beijing, were significant determinants of improvements in the levels of economic development across Russian regions. This work differs from others by the fact that we control for natural resource endowment in order to minimize the resource rent effect on regional economic growth in Russia.

Keywords Trade - Russia - Regional Economy - Growth - Trade

JEL Classification Numbers F14 - O18 - P25 - P48

1. Introduction

Resource-dependent nature of economic growth in Russia following the post-Soviet transformation in 1990-2000's is well researched in empirical literature (Cooper, 2006;

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Kuboniwa, 2012; 2014). High world oil prices during years preceding the financial crisis of 2008 have positively affected aggregate rates of economic growth on the macro-level (Benedictow et al., 2013; Hofman et al., 2012). There were mainly two sources of this effect. Firstly, proceeds from exports received by Russian firms stimulated higher investments and growth of wages. Secondly, rents in forms of various resource-related tariffs and levies increased budgetary gains of the federal government (Kuboniwa, 2012). This produced a multiplicative effect on business, government and consumer spending and in the end led to growing prosperity reflected in growing incomes.

The mainstream literature on economic dynamics in Russia in 2000's predominantly focused on the macro-perspective of foreign trade rather than on its regional impact. However, region-wide effect of export and import deserves more attention due to several considerations of both global and country-level character. First of all, research into regional impact of foreign trade is necessitated by growing international awareness about role and place of regions in the economic development of countries and, more broadly, in the world economy (Storper, 2008). This trend towards the reinforcement of economic activity at the subnational or regional level somewhat countervailed a progressive transfer of certain economic and political functions upward to the plurinational and global levels (Scott, 1999).

Therefore, it is important to understand what connection to global markets Russian regions have by means of their foreign trade. Of special interest is the question whether foreign trade has any impact on economic development in Russian regions which for several decades did not have free access to world markets under a planned system.
Unlike European countries which started reinforcement of economic and political life at regional level since the end of the 1970's (Scott, 1999), Russia witnessed this transformation, albeit rapid, almost two decades later. The empirical research could not keep up with the pace of changes because studies on impact of foreign on regional development levels are not numerous though there were some for the country-level. Thus, more empirical research is necessary for investigating the impact of foreign trade on regional development to support related policy- and decision making.

Aggregated macro-level data and research do not always suit for such purposes because they fail to emphasize regional differences in foreign trade intensity. In a country like Russia characterized by uneven spatial organisation, regions reveal deep variations in their geographic and market characteristics, natural resource endowment, transport infrastructure, etc. (World Bank, 2004). Even for resource abundant regions, resource endowment itself represents no more than one of the factors contributing to higher levels of development rather than being a single source of growth. Also, experience of other countries shows that economic growth is possible in resource-scare countries like Japan, Germany and South Korea well. Therefore, a research question about the relationship between changes in levels of economic development and non-resource factors emerges from this point.

As mentioned above, research into problems of trade and economic development in Russian regions is meaningful from the point of policy making. To be more specific, it can give ideas on how to manage trade patterns in development process under a situation when economic activity is geographically dispersed. 'Lumpiness' of economic development (Rodrick, 2003), which is the case in Russia, could result in competitive and collaborative relations of regions with their trade partners becoming more significant for their economic life.

This paper attempts to address some of these issues by investigating pattern of regional economic development in Russia from the point of its relations with foreign trade and geography. The emphasis is on the period of 2000-2012 when Russian witnessed improvements in the levels of economic development in all its 83 regions. We run a series of empirical tests in order to investigate whether trade plays critical role in determining the level of economic development in Russian regions. If so, to what extent the effect of trade on economic growth can be changed when spatiality is accounted for. With the term "spatiality" we mean distance to major economic partners of Russia, namely, the European Union and East Asia. These would be substituted by the distance from Beijing and Berlin.

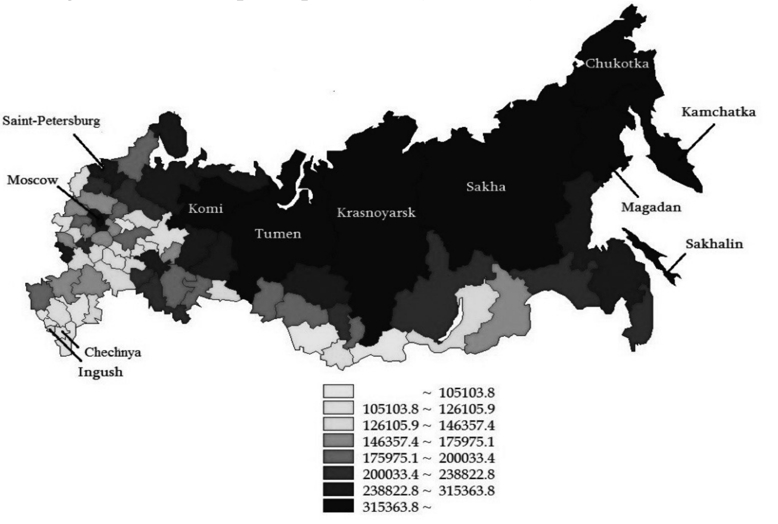
After reviewing regional economic conditions and trade development patterns in Russia in section 2, the paper proceeds to discussion on some theoretical issues and factors explaining dynamics of regional development. Section 4 introduced data and methodology to be utilized and presents analytical results and their interpretation. Section 5 discusses some policy implications, and the final section concludes major findings. Our analysis shows that trade and population distribution critically affect regional economies in Russia, the finding being consistent with theoretical works. Geography too seems to be a significant determinant of development levels across regions and account for some part of the variation in gross regional product (GRP) per capita. When distance to main trading partners, namely, distance from Berlin or that from Beijing, is included into analysis, regions that locate closer to Beijing tend to grow faster.

2. Regional Economic Space and Trade Performance in Russia in 2000-2012

Russian regions differ substantially between each other in level of economic development. In 2011, ten regions out of total 83 accounted for more than 50% of Russia's sum of GRP, while 20 regions accounted for almost 70% of nominal sum of GRP[1]. Top contributing regions include cities of Moscow and Saint-Petersburg, the Moscow regions, Khanty-Mansiysk Autonomous District, Krasnoyarsk and Sverdlovsk region. Size of country's geographic space leads to scattered economic activity: areas of concentration are divided by enormous expanse of "dead space"' (Carluer and Sharipova 2004; Dienes, 2002).
Territorial differences in Russia are very deep-rooted (UNDP, 2007) and were initially set by advantageous resource endowments. But variations in levels of regional economic development had become even more pronounced. This is illustrated well enough in Figure 1. Regions marked by dark colours are usually the ones characterized by higher levels of GRP per capita, while lighter ones are those with lower levels of GRP.

1 Unified Interdepartmental Statistical Information System Website, <http://www.fedstat.ru/ indicator/ data.do>.

Figure 1 Gross Regional Products per capita, 2010 (in roubles)



Note: All the data in this paper were derived from Regiony Rossii, various years, by FSSS, if not noted. All the figures and tables were prepared by the authors.

As seen from the Figure 1, variations in levels of GRP per capita were quite pronounced in 2010, and the situation did not change much for these ten years up to 2012. And in some cases, for example, between Nothern Tumen and Caucasian Ingush, the difference reached around twenty to thirty times[2]. Exports too are dispersed unevenly across Russian regions. Here Western regions are doing better than the rest of the country[3].

Increase in inequality in the level of economic development among regions can be largely attributed to two factors. The first is the fact that practices of massive re-distribution of resources by the state were abandoned in the 1990's. Even though they often lead to distortions and misallocations, they sustained economic activities in 'disadvantaged' regions like the ones in the North (Hill and Gaddy, 2003). The other factor could be summed up as an uneven access to economic benefits of growth realized in the 2000's.

There is one quite uncommon thing that becomes quite obvious from Figure 1. Regions with higher levels of GRP are located inland while economically less successful regions are usually the ones located closer to capital region and state borders. Such

2 Unified Interdepartmental Statistical Information System Website, http://www.fedstat.ru/ indicator/ data.do.

3 It should, however, be born in mind that to a certain extent this concentration is a result of data extortion: headquarters of big companies are often registered in Moscow or other big cities while their production base, and consequently export base, locates in regions. This fact could also explain why Moscow and Saint-Petersburg are among top oil and gas exporting regions. In 2011 they exported mineral fuels worth 167.4 billion US dollars and 16.1 billion dollars respectively. It is more than export volumes of net oil producers Tatarstan or Sakhalin for the same year which stands at 16 billion USD and 15 billion USD respectively (Federal State Statistical Service of the Russian Federation (FSSS), 2014). Such data extortion makes an additional reason to account for resource factor when estimating the effect of export on regional economic growth in Russia.

dispersion of GRP across country is strikingly different from what is found in other countries. For example, in China inland regions are less developed than the coastal ones (Li and Xu, 2008; Kwan, 2014). In addition, this type of dispersion of economic activity contradicts to the postulates of theoretical underpinnings of economic geography that says that border regions are more likely to grow faster (Fujita and Mori, 1996). Therefore, in case of Russia we might observe a peculiar type of relations between geography and economic growth. Such relations may result from various reasons including uneven resource endowment and degree of involvement into international trade.

Evidently, increased openness to international trade account for a certain degree of growing regional disparities between Russian regions (Fujita, Kumo and Zubarevich, 2006). After state monopoly for foreign trade was terminated with adoption of trade liberalization act in 1992[4], foreign trade emerged as one of factors of economic growth. Trade's contribution became especially significant in 2000s when Russia saw an accelerated growth of its foreign trade backed by resource exports (Berkowitz and DeJong 2010; Korgun, 2014). In 2000-2010 the volume of export grew at an average rate 17.69% with pre-crisis levels reaching 22.98% during 2000-2008. Growth rates of import over similar periods seem to be unaffected by geographic positioning of the regions. Also, this may mean that remoteness of some regions does not seem to be a problem for certain regions. However, whether it is so or not needs to be tested empirically.

Peculiarities of Russia's spatial development may result from factors of the first nature (Krugman, 1991), namely, exogenous geographic conditions and resource endowment. The second nature, which is man-made, also must have affected the pattern of Russian economic growth. The first and the second nature of economic geography would be discussed more detail in the section of previous literature, but it should be mentioned here as well. Setting aside a pace of historic process and the fact that there were big time gaps in exploration of regions, which are hard to account for statistically, migration patterns seem to intensify economic differences between the Russian regions too. In the absence of state control for movement of population and depopulation of northern regions, varying levels of population distribution influences such aspects of economic activity as agglomeration, infrastructure, involvement in foreign trade and many others (Zubarevich, 2012). In context of given study this means that population could also contribute to the observed differences in relations between regional economic development level and trade.

One more point that deserves consideration is the variation in direction of trade flows. When it comes to national level, Russia's principle trading partner is EU, followed by China. In 2012 four European countries – Germany, Italy, Netherlands and Poland – accounted for 36% of Russian exports; China's share was around 8%, equal to that of Germany (FSSS, 2013). However, Far Eastern regions tend to be more oriented towards China and Asia on the whole due to geographic proximity of Asian countries. Up to 70-80% of export of Primorsky, Khabarovsky and Amursky regions, three biggest non-oil

4 The presidential decree "About Liberalization of Foreign Economic Activity" N 629 as of 14.05.92 and N 1306 as of 27.10.92.

producing regions in the Far East, goes to Asia and up to 30-40% to China alone[5]. It could be the case that dominating trade partner influences intensity of foreign trade in particular regions and resulting difference of observed economic growth.

So, taking feature of spatial economic development in Russia into account, we would like to address several points in this study. In the first place we are interested in relations between trade and regional economic growth in the presence of such factors as differences in geographic location, direction of trade flows and distance to economic partners. With this we also aim to answer such questions as: Do regions that locate closer to main economic partners grow faster or not? How does main trading partner (Germany or China effects observed) affect the Russian regional economy? And lastly, Does population level changes relations between trade and growth? To the best of our knowledge, such disaggregation was not done in previous empirical works on trade and economic growth in Russia regions.

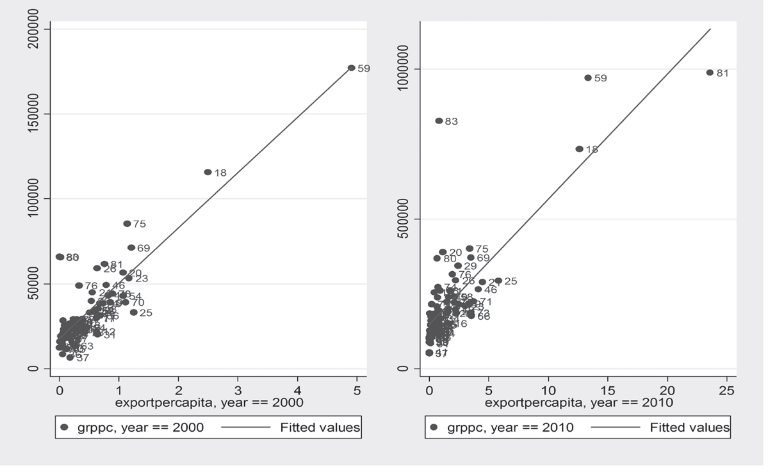
3. Previous Studies

Spatiality and its role in economic growth and trade is one of the most prolific area of study in the field of economic geography. Works of Fujita, Krugman and Venables (2001), Rodrick (2002), Venables (2003), to name a few, established strong relations between spatial characteristics of an economy, which they refer to as factors of the 'first nature', trade and economic growth. According to them, such forces as closeness to border with economically strong partners, differences in access to ports and transport infrastructure - all influence the trajectory of regional economic growth and often lead to unbalanced pattern of growth with high concentration of economic activity and trade in regions that have better 'first nature' characteristics and low economic growth and sluggish foreign trade in regions that are characterized by relatively unfavourable 'first nature conditions'. This is what Venables (2003) called 'lumpiness' in economic development. Divergent trajectories of growth, though it was set by geography initially, can be intensified in a situation of growing openness to exchanges across national borders. In the presence of intensive trade with foreign partners, agglomeration effect 'within' regions may decrease. This lead us to the question of the 'second nature factors', as defined by Krugman and Fujita (2004). The 'second nature factors' are often 'man-made' and can either help to overcome unfavourable first nature characteristics or, on the contrary, induce larger discrepancies. The latter is due to increasing return to scale, which is presented in the second nature geography and which causes regions with initially advantageous factor endowment grow faster, thus, causing more divergence in level of economic development between the regions of the same country. However certain 'second nature' characteristics may induce faster economic growth and in this regard foreign trade and transportation conditions are of special importance. As Rodrick (2002) points out, foreign trade in conjunction with transportation can be seen as a 'deeper' factor of economic and social development. Regional geography is important for trade because it means distance to markets which in its turn determines income (Redding and Venables, 2003a; 2003b). Sharing a border is believed to have a considerable positive

5 Website of Dalnovostochnoe tamozhennoe upravlenie, URL: <http://dvtu.customs.ru/>.

effect on bilateral trade (Frankel and Romer, 1999) while remoteness was usually perceived as a disadvantage because it meant higher transportation and transaction costs. Crozet and Koenig-Soubeyran (2004) constructed a model for two regions, a border and an interior region, trading with a country and their results showed that a border region had more advantages and was, thus, growing faster. Works that explore problems of regional growth and trade in Russia are not numerous. One of the most recent ones were Ledyaeva and Linden (2008), Lugovoy et al., (2007). These works analysed relations between initial level and prospects of economic growth (Ledyaeva and Linden, 2008), export and regional inequality, growth and convergence, geography and economic development. But issues of geography, growth and trade taken together remain largely unexplored. In this respect our work represents a different piece of research that potentially can contribute to the study of designated problems. Empirical studies established positive and consistent relationship between export of manufactures and economic growth both at a macro and regional levels (Balassa, 1978; Bhagwati, 1978; Krugman, 1987, 1991; Sala-i-Martin, 1994; Frankel and Romer, 1999; Redding and Venables, 2003a). However, in Russia's case the biggest contributor to export is resource sector. Currently, in the year of 2012, oil, gas, minerals account for more than 70% of Russia's total foreign shipments (FSSS, 2013). But the nature of relations between non-resource exports and economic growth remains unclear for Russia. Mainstream research on the problems of economic growth in Russia focused largely on resource rent, including some of the recent works like Cooper (2006) and Kuboniwa (2012). Research on relations between non-resource export and regional growth is important from a point of view of policy making for sustainable and balanced economic growth, which is promoted loudly by the Russian government (Institut sovremennogo razvitia, 2010). To do this, control for resource export is needed. Investigation on the effects of non-resource export is also important for other considerations. High resource rent is among the reasons for large disparities in development levels among Russian regions when judged by levels of GRP per capita. As Figure 2 shows, there are several regions (two in 2000 and four in 2010) that outperform the rest. These regions in 2000 were represented by Tumen (#59 in Figure 2), Moscow city (#18) and in 2010 they were joined by a gas and oil producer Sakhalin (#81) and very sparsely-inhabited Chukotka (83). An interesting thing is that over ten years regions with minimal level of GRP grew more rapidly than those with maximum level of GRP. Considering the fact that generally resource-producing regions have higher GRP per capita levels, difference in the magnitude of increase may suggest that non-resource regions were growing faster. Thus, control for resource exports in the analysis may help to reveal the difference in economic growth rates depending on the dominating type of trade patterns found among Russian regions. In accordance with the neoliberal economic theory, the scale of labour pool and the distance to trading partners are important factors that determine trade, both export and import, and influence economic growth (Krugman, 1991). Studies have found positive relations between level of economic development of Russian regions and size of population residing in or migrating to them (Andrienko and Guriev, 2004; Kumo, 2007).

Figure 2 GRP per capita vs Export per capita for Russian regions, 2000 and 2010.
(GRP per capita: in rubles; Export per capita: in thousand rubles)



Source: Prepared by the authors based on FSSS, various years.

Generally, more populous regions have higher income per capita. Because economic networks found in them are more dense, the speed of economic processes is higher. Additionally, they are more likely to export and get more dividends from foreign markets. But there are several exceptions among Russian regions. Some scarcely populated regions achieve higher levels of GRP per capita due to resource rents. These are mostly northern regions of Yamalo-Nenets and Khanty-Mansy that contribute to high GRP per capita levels in Tumen[6] (#59 in Figure 2). Here, GRP per capita in 2010 is far more than that of Moscow city (#18), the political and economic centre of Russia. Thus, it follows that relations between labor pool and trade in case of Russian regions is not straightforward in the presence of large natural resources. This makes another reason to control for resources export in analysis.

Impact of geography on regional economic development level in Russia remains relatively under-researched. Previous studies were dominated by theories of distribution of production forces under a planned economy. There are studies that introduce spatial characteristics of interactions among Russian regions (Ivanova, 2007; Lugovoy et al., 2007; Mikhailova, 2004), but very few works considered distance as a factor of economic growth in conjunction with trade and economic growth. Due to large variations in geographic location, regions in Russia developed different trade patterns. As mentioned in more detail previously, Western regions are more oriented towards the EU while the Russian Far Eastern regions share more intensive ties with East Asia and especially with China.

6 The GRP data for Khanty-Mansy and Yamalo-Nenets are involved in data for Tumen, and they cannot be seen individually.

4. Analysis

In this section we conduct statistical analysis on the relationship between economic development level and trade, and analysis on factors other than resource-mining effects, and those that influence trade activity of regions and are thought to induce economic growth in Russian regions. The analysis employs statistical data for the period of 2000 to 2012 taken from official statistics compiled by FSSS, Regiony Rossii, various years. Data to be utilized and the approaches to be selected are described here.

4.1 Data

Explaining variables to be introduced are as follows. The volume of export per capita and that of import per capita are involved, in order to examine the effect of trade on regional economic growth. Geographical factors to be utilized are the followings. First, a dummy variable for regions which take lead in resource mining, namely, 10 leading regions in natural resource mining, is introduced. This variable denotes the first nature of economic geography (Fujita, Krugman and Venables, 2001). Second, in accordance with the suggestion from empirics of trade and economic growth studies as described in previous studies, the distance from the trade partners should be taken into consideration. A variable used is a distance from Berlin or that from Beijing, the main trading partners of Russia in Europe and that in East Asia. It seems to be natural to assume that proximity to trade partners would have positive effect on regional growth[7] [8].

The so-called second nature factor, which could be generated by human activity, is partially grasped by the average number of working population in the economy of each region. This will be taken as a proxy for the market size of the region, and this is also an indicator of agglomeration effect. Other control variables introduced should be mentioned. Investment by the federal government per capita and that by the private sector per capita would be used individually. The former may be invested in less-developed regions in order to support peripheries, and the latter may be conducted in advanced regions for its sector's own sake.

As for the explained variable, one may be able to introduce several specifications in order to examine positive or negative effects of regional trade volume on regional economy. One may assume it seems to be better to employ per capita income in order to check the effect of trade on income. Income redistribution, however, reduces regional disparity in income level of Russian regions apparently (Kumo, 2007; Belov, 2010) and it may lead to ambiguous results. If we check (1) the relationship between export and income and (2) that of export and gross regional products, the latter seems to be more efficient for the analysis (Figure 3a, 3b).

7 Volume of freight by rail, railroad density, motorway density, aggregated indicators of transport conditions obtained through the application of principal factor analyses on these data, or volume of freight by sea port were examined in preliminary analysis, but none of these data gave us significant results.

8 Additionally, interaction terms between trade and the distance from major trade partners would be involved and their effects were tested. They gave, however, ambiguous results and were not used in the analyses.

Figure 3a Volume of Export (2000-2009) and Income per capita (2001-2010), one-year lag was given to export (all the data were pooled).

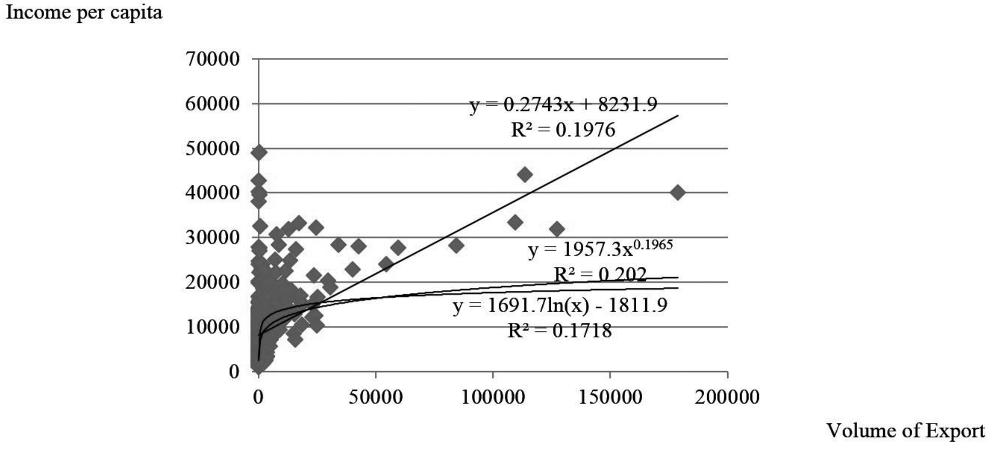
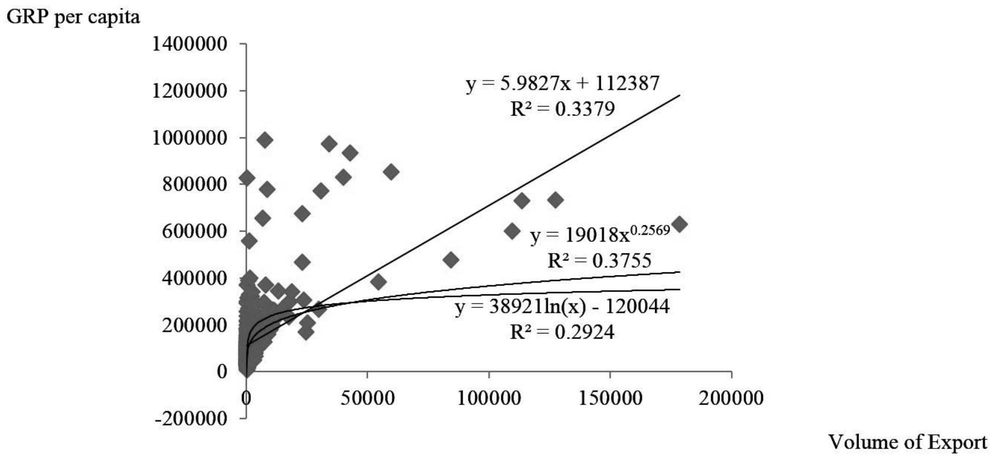


Figure 3b Volume of Export (2000-2009) and Gross Regional Products (GRP) per capita (2001-2010), one-year lag was given to export (all the data were pooled).



Source: Prepared by the Authors based on FSSS, various years.

Data were collected by region, namely, by federal subject of Russia. Considering the unsettled economic situations and widely-spread non-monetized economic systems during the 1990s (Avdasheva et al., 2007), the period to be investigated is from 2001 to 2012. The data on autonomous okrugs (regions) is, however, very limited and they are not available in some cases especially in the early period. The definition and descriptive statistics of the data utilized are described in Table 1.

Table 1 Definition and Descriptive Statistics of the Data

Variable	Variable Name	Observation	Mean	Standard Deviation	Min.	Max.	Unit	Definition
GRP per capita	-	1044	119986.2	122498.2	6667.9	987417.7	in Rubles	Gross Regioal Products per capita in Current Prices.
Export per capita	ExpCap	961	1.27	2.75	0	32.29	in 1000 Rubles	Volume of Regional Export per capita in Current Prices.
Import per capita	ImpCap	970	0.54	1.17	0	10.98	in 1000 Rubles	Volume of Regional Import per capita in Current Prices.
Labor Power in the Economy	Labor	989	824.8	835.2	20.9	6593.2	in Thousand	Yearly Average Number of Labours in the Eocnomy.
Governmental Investment per capita	GovInves	996	0.05	0.16	0.0011	1.85	in 100 thousand rubles	Yearly Volume of Governmental Investment per capita.
Private Investment per capita	PriInves	989	0.06	0.11	0.0018	1.55	in 100 thousand rubles	Yearly Volume of Private Investment per capita.
Dummy for Resource Mining Regions	ResDummy	996	0.12	0.33	0	1	-	Unity for top 10 resource mining regions, zero for others.
Distance from Berlin	Berlin	996	3085.8	1870.0	530	7953	in Kilometers	Distance of regional capital from Berlin.
Distance from Beijing	Beijing	996	4710.9	1476.7	1345	6829	in Kilometers	Distance of regional capital from Beijing.

4.2 Methods

For estimating the regional development patterns across Russian regions, we follow the theoretical framework of the augmented Solow model (Mankiw, Romer and Weil, 1992), which is extensively used for analysis of variations in income levels and growth patterns among countries. According to the augmented version of the model which represents an extension of production function, output is a function of physical capital, labour and the level of technology. Our specification does not include technology because we assume that in the regions of the same country technology levels are roughly the same. But it includes trade and geography components as discussed earlier. The final specification takes the following form:

Log GRP per capita = ExpCap+ImpCap+Labor+GovInves+PriInves
+ResDummy+Geography (Either Berlin or Beijing)

We take gross regional product per capita in the logarithmic form, taking into consideration about the decreasing effects of explaining variables to scale, and give one-year lag to explaining variables in the right-hand side of equation except for the time invariant geography factors and resource dummy.

The approach to be utilized is panel data regression analysis and pooled ordinary least squares (OLS). Each region is regarded as a panel sample in panel regression analysis. Variables constant with respect to time (distance from Berlin and that from Beijing) would be introduced, therefore not fixed effect models but panel random effect models should be taken as the first selected specification. Pooled ordinary least squares estimation was not chosen by statistical tests involved, but the results of OLS will be presented for reference and robustness check. The effects of mining sectors on Russian regions are apparent (Kuboniwa, 2012) and they are not the main targets of this analysis. Rather, we aim to check the effect of factors other than mining sectors on levels of economic development in Russian regions. Consistent with the discussion above, our main target relates to the roles of trade and geography. Introduction of a dummy variable for resource-mining regions would allow us to control for the effects of the resource mining sector[9]. Thus, our first hypothesis is that trade influences regional economies in Russia and accounts for the difference in levels of GRP.

The other hypothesis deals with the role of geography. Namely, we verify the hypothesis that regions which locate close to trade partners may grow faster. For this purpose we would introduce the distance from Berlin and that from Beijing, the largest trade counterparts with Russia in recent years. By doing so, we also aim to check which trading partner has potentially larger effect on the levels of economic development. Lastly, the period to be examined by this study concerns years of economic boom in 2000's including recession that ensued after the financial crisis of 2008. It is widely believed that during boom years growth was based on exports of resources. While there is a great deal of truth to it, with this analysis we also try to check whether or not factors other than resource producing sectors have also provided solid foundations for positive dynamics.

4.3 Results and Interpretation

Results that were obtained are shown in Table 2. GRP per capita was chosen to be a dependent variable as it should be the most relevant indicator[10]. Qualitatively results of random effect model panel regression and those of the pooled OLS are in the same direction. Inclusion of variables constant with respect to time requires that we should use random effect models in estimating panel regression models, as mentioned earlier. Qualitatively the results are almost the same in whatever specification of the estimated equation. Hence, from here the discussion will be made basically in accordance with the results identified as Specification (5) or (6) in Table 2a. Almost all the regression coefficients obtained expected results, and the results seem to be stable. Especially we would like to mention about the robustness of the positive effect of per capita export volume and import volume on GRP per capita. The variable always obtained significant and positive coefficient in any of the specifications. The implication of this result is clear-cut and the volume of export and import per capita definitely increase the volume of gross regional products per capita in Russian regions.

As for controlling variables, both governmental investment per capita and private

9 A possible explaining variable which denotes the effects of resource mining sectors may be the volume of export from mining sectors. However, correlation between the total export and that of mining sectors is very strong because more than 70 % of export from Russia is composed by natural resources.

10 In the preliminary analyses the authors tried to use income per capita or expenditure per capita. In both cases the resource-mining region dummy variable and distance neither from Berlin nor from Beijing obtained significant results. Income redistribution must affect regional economic conditions and GRP per capita should be regarded as more adequate indicator in this case.

investment per capita show expected and significant results. The governmental investment was made in comparatively poorer regions, and this may be the compensation for the poorness of the regions. On the contrary, the private investment was made in comparatively richer regions.

Table 2a Estimation Results by Random Effect Panel Regression Analysis Explained variable Log (GRP per capita)

VARIABLES	Specification 1	Specification 2	Specification 3	Specification 4	Specification 5	Specification 6
ExpCap	0.0986***	0.0976***	0.102***	0.0922***	0.0924***	0.0922***
	(0.0104)	(0.0105)	(0.0101)	(0.0104)	(0.0104)	(0.0103)
ImpCap	0.265***	0.262***	0.236***	0.243***	0.243***	0.245***
	(0.0237)	(0.0243)	(0.0230)	(0.0229)	(0.0229)	(0.0229)
Labor		3.72e-05	0.000159**	8.31e-05	0.000108*	0.000106*
		(6.06e-05)	(6.20e-05)	(6.33e-05)	(6.41e-05)	(6.35e-05)
GovInves			-0.982***	-0.891***	-1.037***	-0.938***
			(0.292)	(0.288)	(0.296)	(0.287)
PriInves			5.235***	5.229***	5.057***	5.153***
			(0.507)	(0.502)	(0.507)	(0.501)
ResDummy				0.670***	0.570***	0.562***
				(0.160)	(0.166)	(0.165)
Berlin					5.53e-05**	
					(2.71e-05)	
Beijing						-7.29e-05**
						(3.26e-05)
Constant	11.33***	11.30***	10.99***	10.98***	10.82***	11.32***
	(0.0512)	(0.0693)	(0.0799)	(0.0783)	(0.113)	(0.171)
Wald chi2(2)	315.86	315.58	481.30	507.95	514.12	515.64
Prob > chi2	0.00	0.00	0.00	0.00	0.00	0.00
R-sq within	0.23	0.23	0.33	0.33	0.33	0.33
R-sq between	0.43	0.42	0.44	0.55	0.56	0.56
R-sq overall	0.31	0.32	0.36	0.39	0.40	0.40
Observations	935	935	934	934	934	934
Number of id	82	82	82	82	82	82

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The dummy variable for resource abundant regions obtained a significant and positive coefficient. Although this result could be expected, the following needs to be mentioned here. That is, even when one controls the effect of resource-mining regions, still there are several factors that affect strongly regional economic development level in Russia. These results other than for resource–mining regions are obtained under the condition that the effect of resource mining regions is controlled; hence, one can interpret that all the variables which obtained significant coefficients are effective on regional economic growth even if resource-mining sectors do not work.

What should be mentioned about one of the results in examining the agglomeration effect is that the volume of labour resources in regions obtained significant coefficient in three of the five specifications which involved the size of labour power. Among which included all the explaining variables into the regression model in Table 2a, and in all the specifications for OLS in Table 2b. In this regard the overall results show that not only the first-nature factors, namely, resource endowment or other time-indifferent factors, but also the second-nature, man-made, factor, namely, population distribution or agglomeration positively affects regional economy.

Table 2b Estimation Results by Ordinary Least Squares. Explained variable: Log (GRP per capita)

VARIABLES	Specification 1	Specification 2	Specification 3	Specification 4	Specification 5	Specification 6
ExpCap	0.148***	0.144***	0.153***	0.132***	0.130***	0.131***
	(0.00914)	(0.00934)	(0.00915)	(0.0101)	(0.0100)	(0.0100)
ImpCap	0.160***	0.148***	0.126***	0.137***	0.148***	0.151***
	(0.0200)	(0.0209)	(0.0202)	(0.0202)	(0.0200)	(0.0201)
Labor		5.49e-05*	0.000120***	8.83e-05***	0.000110***	0.000105***
		(2.89e-05)	(3.08e-05)	(3.13e-05)	(3.12e-05)	(3.11e-05)
GovInves			-1.270***	-1.152***	-1.377***	-1.250***
			(0.227)	(0.226)	(0.227)	(0.223)
PriInves			3.745***	3.717***	3.404***	3.590***
			(0.443)	(0.439)	(0.437)	(0.434)
ResDummy				0.371***	0.257***	0.261***
				(0.0813)	(0.0833)	(0.0830)
Berlin					6.31e-05***	
					(1.24e-05)	
Beijing						-7.57e-05***
						(1.48e-05)
Constant	11.30***	11.27***	11.08***	11.08***	10.91***	11.44***
	(0.0252)	(0.0315)	(0.0423)	(0.0419)	(0.0540)	(0.0817)
Observations	935	935	934	934	934	934
R-squared	0.343	0.346	0.400	0.413	0.429	0.429

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

More attention should be paid to the results for distance from Berlin or that from Beijing. The former obtained positive and significant coefficient and the latter variable obtained negative and significant coefficient. This means that the closer the region is to Beijing, the higher the gross regional product per capita of the region, and vice versa. In preliminary analysis we tried to include distance from Moscow, Russia's capital, in order to check how proximity to the capital region affects regional variations in development levels. However, the results obtained were same as those for distance from Berlin: hence, we do not include them here. On the contrary, the distance from Berlin, the second leading trade partner of Russia in 2012 (following Netherland, see FSSS, 2013) and the most important economic partner for many Western regions did not obtain comparable coefficients with the distance from Beijing. Thus, our hypothesis regarding the positive effect of proximity to China or East Asia on trade and growth in Russian regions received statistical evidence. Moreover, the result shows comparative importance of the direction of trade flows.

5. Discussion and Policy Implications

Two main discussion points emerge from the results obtained. First, international trade plays an important role in economic development in Russian regions. This fact should deserve more attention in the Russian context because transition towards greater openness to trade has not been long in time and is far from complete. The significance of trade does not change whether or not the first nature geography is taken as a distance to main trading partners (Table 2a). This result is somewhat surprising because effect of trade could be intensified, or lessened, by geography since geographic distance also means economic distance due to its connection to trade costs. Thus, international trade has enough explanatory power to account for difference in income levels and growth patterns of the Russian regions.

Second, geography is an additional and important determinant of regional economic growth, understood here as the level of GDP per capita[11]. Higher coefficients for Beijing were not expected because, historically, Germany has always played an important role as a major trade partner, based on the role which was supported by long-term investment and technology cooperation in bi-lateral (Russia-Germany) and multilateral (Russia-EU) mode. Statistical importance of Beijing may be seen as an evidence of shift in Russia's development pattern from Europe-oriented towards Asia-oriented, which was actually declared officially in 2008[12]. Several assumptions could be offered to possibly explain this phenomenon. The fact that a large part of Russia's territory lies in Asia makes China as the closest economic partner for many Russian regions. Consistent with the previous discussion, geography becomes an important factor in determining directions of trade flows in a more open economy. On the other hand, bigger role of China could be explained by complementarity of industrial complexes between regions of the two countries[13] (Kang, Ch. 2014). Plausibility of these assumptions still needs to be verified empirically since the extent of contribution of exports to China was not fully covered. Nevertheless these findings may be in favour of growing importance of Asia for the Russian economy, or at least they may be the signs that a more balanced export-driven growth pattern is a possible development scenario for Russian regions.

With regard to policy implications, the following could be suggested based on the results of this research. Since international trade, both export and import, has stable and positive effect on the regional economy, it is important to introduce various support programs for international trade. These programs need to consider the effect of proximity to foreign trade partners and provide enough opportunities to develop trade in both European and Asian directions. More support for non-resource trade can aid economic growth in resource-poor regions. Considering the strength of the first nature factors,

11 The order of magnitude of the impact of distance to trading partners, Beijing and Berlin, should also be taken into account. When checked for, standardized Beta coefficients, that show the relative strengths of the variables used, distance turns out to have stronger impact than population and resource abundance. For details see Appendix Table 1

12 The necessity to pay more attention to Asia-Pacific was mentioned in the Concept of the Foreign Strategy of the Russian Federation 2008, and was strongly advocated in the new version of the document in 2013. See "Concept of the Foreign Policy of the Russian Federation as of July 12, 2008", available at: <http://www.mid.ru/brp_4.nsf/0/357798BF3C69E1EAC3257487004AB10C> and Concept of the Foreign Policy of the Russian Federation as of February 12, 2013, Available at: <http://www.mid.ru/bdomp/nsosndoc.ns-f/e2f289bea62097f9c325787a0034c255/0f474e63a426b7 c344257b2e003c945f!OpenDocument>

13 Certain similarity in production forces created under planned communist system has been rapidly changing lately due to rapid structural shifts in Chinese economy (Kwan, 2013).

infrastructure development is an essential part of improvements in the fundamentals of regional economic growth and of integration into the world trade by Russian regions.

6. Concluding Remarks

The second-nature factor, population distribution, must have effects on regional economy as indicated in theoretical studies and the analytical results for Russia in this paper have shown as well. What we have to emphasize here is, however, it is apparent that regions which locate closer to main economic partners grow faster. Although the direct effects of economic performances of trading partners were not examined, geography does matter much in defining levels of regional development in Russia.

In this paper we explored the problem of trade and economic growth in Russia. Our discussion deals with relationship between regional economic growth and trade in connection with other factors that induce growth, namely, geography and population agglomeration. The results that were obtained here are consistent with previous studies in the aspect that they provide evidence for significant impact of trade, geography and agglomeration on economic development. In the case of Russian regions proximity to trade partners seems to be important factors determining economic dynamics in regions. Results obtained through analyses also show that there are important changes in Russian trade patterns. They tend to be directed more towards China than Berlin that used to be the main partner for Russia in both industrial and trade aspects. In the coming years orientation towards China, or more precisely, East Asia on the whole, may intensify due to government policies aimed at development of the Russian Far East and the current political situations induced by Ukrainian/Crimean incidence.

Analytical results by this study are robust but still there are certain limitations. Government policies for regional development were not taken into account though some of them must influence level of gross regional product per capita. Also, the analysis did not include possible effect of exchange rate as well as changes in the rates for transportation, though what is important is not physical distance but economic distance. Potential effect of these factors could be, however, explored in future studies.

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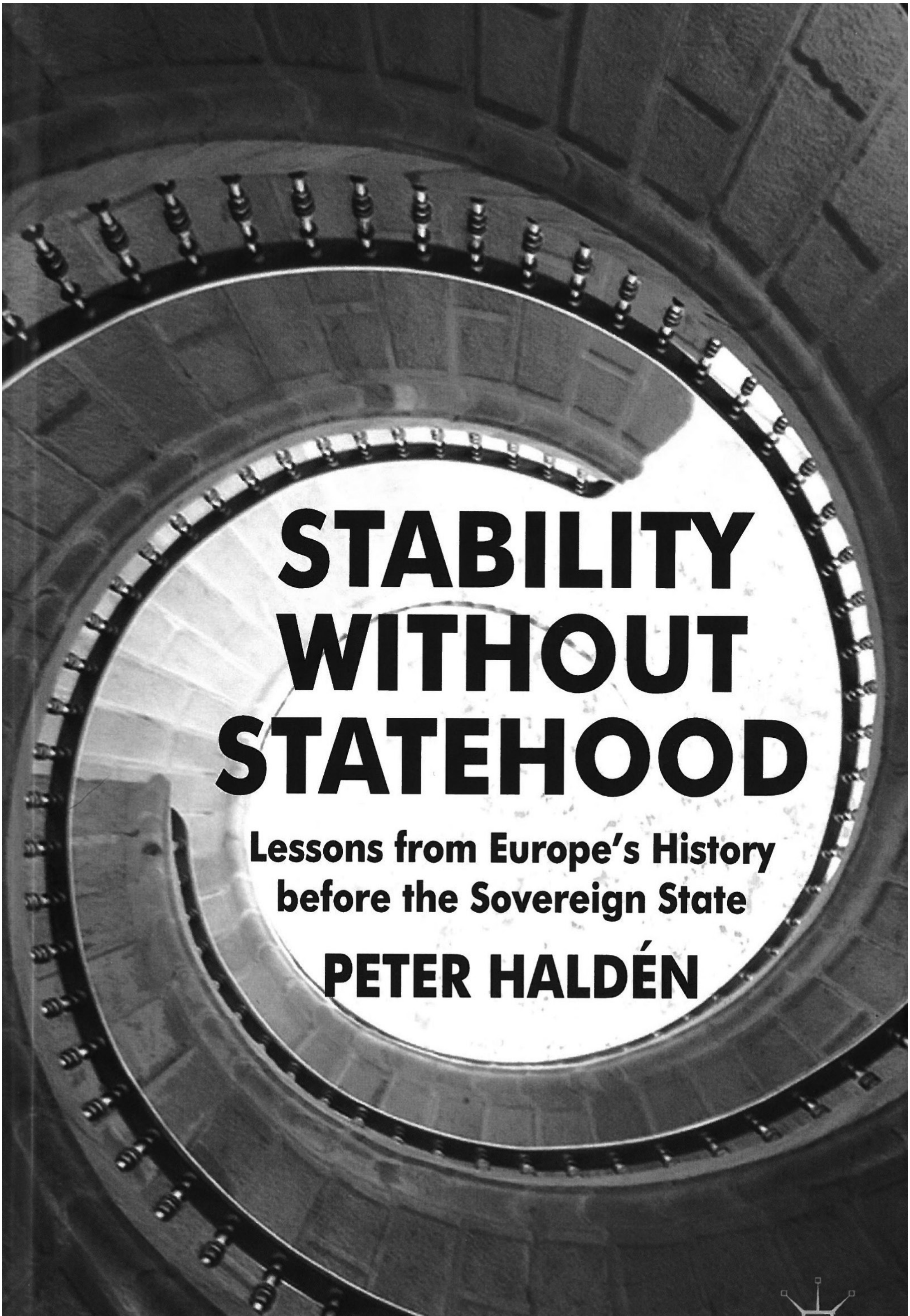
Appendix

Table 1 Estimation of Standardized Beta-Coefficients (by OLS only)

VARIABLES	(1)	(2)
ExpCap	0.41***	0.41***
	(0.01)	(0.01)
ImpCap	0.21***	0.22***
	(0.02)	(0.02)
Labor	0.11***	0.11***
	(0.00003)	(0.00003)
GovInves	-0.17***	-0.15***
	(0.23)	(0.22)
PriInves	0.22***	0.24***
	(0.44)	(0.43)
ResDummy	0.096***	0.097***
	(0.08)	(0.08)
Berlin	0.14***	
	(0.00001)	
Beijing		-0.14***
		(0.00001)
Constant	-	-
Observations	934	934
R-squared	0.429	0.429

Source: Prepared by the Authors.

Source: Prepared by the Authors.



STABILITY WITHOUT STATEHOOD

Lessons from Europe's History before the Sovereign State

PETER HALDÉN

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PAPER

Trans-Pacific Partnerships Agreement Diluting China's Ascendency in Southeast Asian Regionalism?

Mohamed Aslam

Abstract Political and economic development over the past 10 years reveal that the close allies of the United States of America (USA) were unable to "limit" China's growing domination in the Southeast Asian region. The TPPA that was led by the US was believed as a counter measure to check China's growing power in Southeast Asia. This paper attempts to answer (i) what is the motive of the US government involvement in TPPA, (ii) what the possible implication of TPPA to China, and (iii) what would happen to China's role in the region.

Keywords Free trade area - Trans-Pacific Partnership Agreement - United States of America - China - ASEAN - Southeast Asia

JEL Classification

Introduction

China knew that the country may face hurdles in developing its economy because the open door economic policy which was initiated in 1978 will generate uneasiness among her neighbors particularly ASEAN countries. The OEP may deliver a negative economic and security impact to those countries. To remove the unwanted speculation and a negative perception of their economic policies, China actively established and strengthend economic as well as political relations with countries in the region such as creating bilateral economic relationships. ASEAN's invitation to China to join the East Asia Economic Caucus (EAEC) for instance was a first step and acts as a catalyst to the Chinese government in building a good relationship with her neighbors. Thus, economic relations between China and ASEAN developed and enhanced at a rapid

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pace. ASEAN and China signed FTA agreements (ACFTA) in November 2002. ACFTA covers agreements on the goods sector that was signed in November 2002. Both sides also signed agreements on investment liberalization in 2005 and agreements on services sector liberalization in 2008. Bilateral trade between ASEAN and China has more than tripled since the 1990s. In addition, since 1995 China‘s trade with Japan, South Korea and Taiwan has soared at rapid pace. The remarkable economic expansion of China has integrated economically the Northeast and Southeast Asia countries. In 2000, ASEAN, China, Japan and South Korea agreed to develop the Chiang Mai Initiative (CMI), a regional currency swap to alleviate future currency crises. The Chinese government maintained the current exchange rate between the Chinese yuan and US dollar during the Asian financial crisis, so the affected countries were able to recover from the crisis through trade channels. This suggests that China played a role in helping its neighbour when needed (Jiang, 2010). On the other hand, the US government seemed to not be as helpful, by indirectly providing a "painful help" such as the use of structural adjustment packages via the IMF. The CMI was proposed by China followed by a revised version via the Asian Monetary Fund proposed by Japan during the Asian financial crisis. The role of China in the CMI enhanced China's role in the region while the US role since that time has been marginalized. China involvement in multilateral arrangements such as ASEAN Regional Forum and Six Party Talks in some ways certainly had install uneasiness to the US government and challenging the US hegemony in the Asia Pacific and Southeast Asia regions. According to Breslin (2007 and 2013), the American suspects that China has been using the mentioned multilateral means not as an order-building process but also as an instrument to isolate the United States in region (look also Shambaugh, 2005).

The US government is less emphasize and strengthen economic and political relationship in Southeast Asia before the establishment of ACFTA. China's economic and political engagement with Southeast Asia countries accelerated at a considerable degree which in future will influence the US role in Asia Pacific and Southeast Asia, the US government slowly re-focusing to Southeast Asia. Therefore, to ensure the relevance of the US in Southeast Asia, the "only immediate available" solution was to join the P4-TPP. The involvement of the US and then to lead the "new" TPPA appears to be an attempt to re-consolidate its position and significance in Southeast Asia. The US government realizes that the country's economic health in the 21st century and beyond will depend on a stable and vibrant Asian economy[1]. Since 1945, the U.S. has supported the security, stability and economic growth in the Asia-Pacific region, even though not extensively, however this would be an added advantage. This history is reflected in diplomatic, economic and military relationships with various countries in Asia. The TPPA is not merely intended to lessen ASEAN role but also to check and rebalance China's economic and political influence in the region. As what I believe the TPPA-led by the US actually has a triple strategy, to reduce ASEAN role, to reduce China presence and to increase US influence in the region.

1 Other parts of the world such as Latin America, Africa, West Asia and Middle East and their economic picture lag behind the economic performance of countries in Southeast Asia.

Singapore, Chile and New Zealand were the first three countries to engage in closer economic cooperation under the group known as the Pacific Three Closer Economic Partnership (P3-CEP) in 2002. When Brunei joined the group in 2005 the group was named as the "P4" or Trans-Pacific Strategic Economic Partnership (TPP). The four countries signed the agreement on June 5, 2005. The agreement entered into force on May 28, 2006. This TPP agreement[2] branded as a new standard for a trade and economic partnership agreement that comprises wide areas of economic and non-economic issues compared to many "normal" FTA agreements such as the agreement between ASEAN and China, ASEAN and South Korea and ASEAN-Japan covering market access (goods mobility), investment liberalization and liberalization of the services sector. The P4 countries are small countries in terms of market size and external trade growth. Therefore this agreement may not increase intra-trade and develop solid economic integration among P4 countries (Mohamed Aslam, 2013; WTO, 2008). Other developing countries including other members of ASEAN are not keen to join the group primarily due to the inability of these countries to agree to certain provisions and issues that were negotiated in TPP. In other words, they are not ready for extensive economic liberalization as impnated in TPP agreement. Also the prospects of P4-TPP to stimulate intra-trade was assumed as not promising enough to other members of ASEAN. The intra-trade of P4-TPP is relatively smaller than the intra-trade of the ASEAN Free Trade Area (AFTA). Major trade partners of P4-TPP members are the United States, Japan and China, and these three countries are also major trade partners of ASEAN members.

Another notable reason for the reluctance to join is that none of the countries in the group is strong enough politically and economically to lead the bloc. Also there is no anchor country to lead significantly the group. The Australian government joined the TPP in 2006 but the country was unable to lead the bloc because the government lacks political influence in the region. The government's role in regionalism in Asia-Pacific and in Southeast Asia is rather weak. ASEAN and other Southeast Asian countries regard Australia and New Zealand as "non-Asian". Countries in these regions assume Australia and New Zealand to be "Western" and major allies to the United States of America. In fact, Australia needs a strong country such as the USA or Japan in any regional economic arrangement. For example, the US and Japan suggested the Asia Pacific Economic Cooperation (APEC) in 1989. The formation and realization of APEC was due to huge backing by the American and Japanese governments. Therefore, the bloc seems not to be attractive to other countries in the Asia Pacific region, nor in Southeast Asia nor to other members of ASEAN. Nevertheless, the TPP agreement itself may have drawn the attention of US policymakers because the agreement covers wider areas of economic and businesses interests compared to other FTA arrangements in Asia. American politicians particularly President Barack Obama and his inner circle believed that the P4-TPP agreement could be used, modified and expanded to be re-labeled as a "new" TPP agreement, hereafter TPPA, and then promoted and marketed to other

2 The P4-TTP agreement is a comprehensive agreement. The agreement comprises 20 chapters that cover areas such as trade in goods, tarification, services sector liberalization, intellectual property, investment liberalization, government procurement, competition policy and disputes settlement.

countries in Southeast Asia and the Asia Pacific region. The Obama administration team aggressively promotes the TPPA mainly to fulfill US interests rather than the interests of its partners.

A Short Review. The United States and the TPPA

The US government joined the TPP on November 14, 2009 and I assume the government allegedly "hijacked" and then eventually led the bloc thereafter. Before the US joined the TPP group, the US already had Free Trade Agreements (FTA) with P4-TPP members such as Singapore and Chile. President Obama notified Congress of his intention to negotiate with the existing TPP members on September 22, 2008, and with other potential members Peru and Vietnam on December 30, 2008. On November 14, 2009, President Obama made a commitment on behalf of the United States to engage with the TPP countries, as he mentioned, "*with the goal of shaping a regional agreement that will have broad-based membership and the high standards worthy of a 21st century trade agreement*". Various people called the TPPA a "gold standard" agreement. Senator Charles Grassley, ranking member of the Committee on Finance, welcomed the United States joining the group. Grassley said, "*It's in our national interest to strengthen our economic relations with the Trans-Pacific region. Negotiation of this agreement will help further that effort. And it may pave the way to a broader regional trade agreement in the future. If we want to have any influence over that process, we need to get involved. We can't advance our economic interests if we're not at the table"* (Fergusson and Vaugh, 2009: 4). While in Tokyo during November 2009, President Obama also stated that the growth of multilateral organizations can advance the security and prosperity of this region. *"As an Asia Pacific nation, the United States expects to be involved in the discussions that shape the future of this region and to participate fully in appropriate organizations as they are established and evolve" (Fergusson and Vaugh, December 2009, page 1).*

The Obama administration has turned the TPP into a tool to pursue America's main agenda in international trade and political issues. The P4-TPP agreement was re-drafted, modified and extended the coverage of economic and business related areas. This new TPP agreement, hereafter called TPPA. I assumed that whatever subjects negotiated under Doha Round were brought into this new agreement. Some economists stated that the TPPA agreements are based on US-Korea FTA which was signed on June 30, 2007 (Capling and Ravenhill, 2011). Indirectly the agreement is supposed to fulfill American economic interests rather than the interests of current and prospective members of TPPA. As mentioned earlier the American government treated the TPPA as a stepping-stone to greater involvement in Southeast Asian and Asia Pacific economic matters as well as in politics and security more seriously and deeply (Chye, TS, 2012).

The first round of TPPA negotiation led by the US started in March 2010 with members of P4, the US, Australia, Peru, Vietnam, and Malaysia. Before 2011 the TPPA had nine participants with a small number of countries in the group that cannot achieve a sufficient economy of scale. From 2013 onwards there are 12 Trans-Pacific Partnership countries: Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New

Zealand, Peru, Singapore, the United States, and Vietnam. The US government is the prime mover of the TPPA agreement. The TPPA includes a wide range of economic and non-economic issues as FTA agreements signed between the US and its partners. The agreement follows a US government regional economic cooperation architecture/ FTA standard. The TPPA is a comprehensive agreement covering market access, non-agriculture market access (NAMA), agriculture, NTBs, services (fully liberal), IPR, pharmaceutical, T&C, investment- complete liberalization, safeguard mechanisms, transparency, e-commerce, government procurement, removal of red-tape hurdling trade and investments, dispute settlements, trade and development, trade and technology transfer, trade facilitation, trade and environment, as well as another which I suspect to be trade and labor and liberal Rules of Origin (ROO). This agreement framework seems to be a mini multilateral trade negotiation. The above-mentioned subjects covered by the agreement are speculative. The actual draft of the agreement remains unknown to the public until this day.

Negotiations for the Trans-Pacific Strategic Economic Partnership (TPPA) were anticipated to conclude in 2010 before the Asia Pacific Economic Cooperation (APEC) leaders' meeting in November 2011. After 21 rounds, the 12 countries have made some significant progress but the agreement is yet to be achieved. The lack of consensus between members on some provisions of the Agreement has extended the deadline. Finalizing the agreement has been delayed since August 2013 mainly due to Japan. The unwillingness of the Japanese government to open her agriculture sector and to remove non-tariff barriers stalled negotiations. It seems that Japan may be re-drafting the TPPA. Until May 2014 there have been 21 rounds of negotiations of the TPPA but there is no solid indicator that the agreement will be finalized in near future.

The US has become quite aggressive. It seems that the US plans to finalize the agreement as scheduled or before President Obama's term is over in 2016. If the TPPA materializes, it will be a legacy of the Obama administration for the American people. The agreement was restructured as mentioned and definitely favors the US economy in the long-term. Through this agreement, the Obama Administration is seeking to boost U.S. economic growth and support the creation and retention of high-quality American jobs by increasing exports to a region that includes some of the world's most robust economies and that represents more than 40 percent of global trade. The Obama Administration is working in close partnership with Congress and with a wide range of stakeholders to conclude a strong agreement that addresses issues that U.S. businesses and workers face in the 21st century.

Why the US join the TPP?

The New Zealand government invited the US to participate in the P4-TPP in 2005 (Yuan, 2012). However, the US government with George Bush Jr. as President rejected full participation of the US in the TPP. In February 2008, former President Bush announced that the US would join the P-4 negotiations limited to the areas of financial services and investment. In March 2008, the US participated in P-4 negotiations on certain economic areas the US was interested in including financial services and investment.

On September 22, 2008, former US Trade Representative Susan C Schwab announced that the US would begin negotiations with the P4 countries to join the TPP starting with the first round of talks in early 2009. The big question is why was the US so late in joining the TPP if the bloc would be able to produce significant benefits to the US economy? Reasons given by the US government as stated by Senator and Ambassador Susan C Schwab, the former US Trade Representative from 2006 to 2009, is that the US was hoping that the Doha Round would be concluded by 2008 or 2009, but that this expectation flattened.

Besides the reason mentioned by Ms Schwab above, there are a few possible reasons why the US finally joined the TPP. The first reason as stated by US Trade Representative Schwab was the possible collapse of the Doha Round. There was speculation that the Doha Round was a tool for the American government to build a new "administered trade" in the world economy under the auspices of the World Trade Organization (WTO). There was unhappiness among developing countries with regard to many issues, provisions and modalities of the Doha agreement. Less commitment was shown by the USA and EU governments during the Uruguay Round agreement that was signed in 1994 so that in indirect ways, developing countries "rejected" the Doha multilateral trade liberalization agreement. The round was supposed to be finalized in 2005 but has instead lapsed a few times. The plan by rich countries led by the USA, to "control and administer economic policy and development in developing countries" through the Doha Round seemed to fall apart. So far there are no solid indications that the Doha Round of the WTO will materialize in the near future.

A second possible reason for US involvement in the TPPA is the potential to utilize TPPA as one solution for the country's economic recovery and as a plan for long-term economic growth. The impact of the financial crisis of 2007/2008 on the US economy is felt until today. The country's economic performance remains sluggish until the present. Real GDP growth hovered around 3 percent from 2008 to 2013. Even though unemployment rates have declined from 11 percent in 2009 to 8 percent in 2013, the labor market situation remains tight and sluggish. Budget deficits increased significantly every year and policy changes failed to generate market confidence. In addition, the current account of balance of payments is persistently in a deficit and has become a major headache to the government. The quantitative easing policy with lower interest rates is also unable to stimulate private investment as an engine of economic recovery and growth. The future of the US economy seems to be bleak as competition in the global commodity market will be very competitive in the 21st century. Developing countries including China may devalue their currencies as a way to stimulate and strengthen growth in the economy via the exports sector which would further hurt the US exports sector. Therefore, it is believed that the TPPA has considerable strategic economic significance to the US in searching for new markets and creating fresh growth opportunities through international trade (Palit, 2012). Since Southeast Asia is speculated to become the new center of world economic growth in the 21st century, the US via TPPA plans to grasp economic opportunities in Southeast Asia. Southeast Asia's intraregional trade as a share of total trade is far above that of any other developing region and is closer to that of high-income countries (Alavi, Van Doorn and Nehru, 2012). The region has overtaken NAFTA in terms of intraregional trade as a share of total trade of the region with the world and has been catching up with the European Union (Alavi, Van Doorn and Nehru, 2012).

The large and growing markets of the Asia-Pacific region are already key destinations for US manufactured goods, agricultural products, and services suppliers, and the TPPA will further deepen this trade and investment. As a group, the TPPA countries are the largest goods and services export market for the United States. US exports of goods to the broader Asia-Pacific region totaled $942 billion in 2012, representing 61 percent of total US goods exports. US exports of agricultural products to the region totaled $106 billion in 2012, 75 percent of total US agricultural exports (Mohamed Aslam, 2013). Private services exports totaled $226 billion in 2011, 38 percent of total US private services exports to the world. America's small and medium-sized enterprises alone exported $247 billion to the Asia-Pacific region in 2011 (Mohamed Aslam, 2013) .

The third possible reason is a threat of US Dollar (USD) role by the Chinese government move in internationalizing yuan in international economy, i.e promoting and increasing utilizing yuan in international transactions with her major economic partners. Since 2009 China has signed currency (RMB) bilateral swap agreements with 25 countries and the total amount of the swap arrangement was over 2.7 trillion yuan[3]. The main intention of the swap arrangement is to increase usage of yuan/Remimbi in international trade between China's partners. In other word, the arrangement is to reduce usage of US dollar (USD) between China and her trade partners in trading. In the case of bilateral agreement between China and Russia in November 2010, both countries have abandoned using USD as the medium of exchange in bilateral trade, and using their own currencies in international payments. Regarding the matter and which may irk US government is the monetary cooperation between People Bank of China (PBOC) and European Central Bank (ECB) had establish bilateral agreement on currency swap arrangement on 9 October 2013. The swap line has a maximum size of 350 billion yuan or 45 billion euro. Related to the issue, on March 28, 2014, the PBOC and the Deutsche Bundesbank signed a memorandum of understanding in establishing a clearing and settlement arrangement of yuan payments in Frankfurt. Also, on March 31, 2014, the PBOC and Bank of England signed a memorandum of understanding regarding yuan clearing and settlement arrangements in London. If the usage of yuan in international economic increase the government may proceed to a full yuan convertibility, and this would challenge the role of USD in international economy.

Besides economic reasons as elaborated above there are other motives for US participation in and leading the TPPA negotiation. The motives are unambiguously linked to security in the Asia-Pacific region and Southeast Asia with plans to contain China's economic and political power advancements in Southeast Asia. China's economy was growing rapidly at an average of 11 percent from 1990-2006 before falling to 8 percent from 2007-2013. The economy is expected to overtake the US economy by the end of

3 Information on swap arrangements by China and her trade partners were collected from the People Bank of China (PBOC) website.

2016. Based on the real cost of living and purchasing power, the size of the Chinese economy in 2011 was 87% of the US economy, up from 43% in 2005 (Monaghan, 2014). This situation was predicted by the International Monetary Fund (IMF) in 2011 and that the US could lose its status as a larger economy within five years after 2011 (Gardner, 2011). Chinese goods and investments have reached every corner of the world. The aggression of the Chinese government and investors for mineral and energy sources has increased competition for natural resources predominantly "controlled" by the US and other members of G-7. These developments seem to have escalated tensions for American policy makers with regard to maintaining future, sustainable sources of energy. The growing influence of China on the world economy has increased the level of uneasiness for US politicians and business communities.

China's total exports to the TPPA group in 2001 was approximately USD120.3 billion and imports from the members at about USD94.2 billion (Mohamed Aslam, 2013). This trade increased to USD730.2 billion and USD 555.2 billion in 2012 respectively. Compared to ASEAN + 3, total exports in 2012 was approximately USD444.2 billion and imports at about USD540.1 billion. For APEC in 2012, China – APEC intra-trade recorded exports was approximately USD130.6 billion and imports about USD1142.5 billion. In case of the US, total exports to TPP members were lower than China. In 2012, US total exports to TPP members were near USD688.8 billion while imports were about USD856.5. The US has a trade deficit with the TPP members, in aggregate (Mohamed Aslam, 2013). Total exports to ASEAN+3 in 2012, was about USD298.5 billion while imports were near USD783.0 billion. Exports to APEC in 2012 was about USD941.6 billion and imports USD1493.7 billion, and the US faces trade deficits with APEC members, in aggregate (Mohamed Aslam, 2013).

The US government is aggressively pushing and promoting the TPPA in the region and at the same time strengthening political and economic relations with countries in Southeast Asia and with South Korea, Japan and other Pacific island countries. This is important: Creating a large economic or trade bloc could possibly hinder China's economic progression and political influence in the region. Close allies to the US government particularly Australia, New Zealand and Singapore have had good political and economic relations with countries in TPPA and also formed bilateral economic comprehensive partnerships with some TPPA countries. This is an added advantage to the US since the TPPA may have strong "backing" by the allies. The objective of the Obama administration to strengthen a closer engagement with Southeast Asia and Asia-Pacific countries would be easier since this effort would have strong support from America's close trade partners/allies. Therefore, there is an opportunity for the US government to increase its presence in Southeast Asia through TPPA. The US plans to make the TPPA as a main flagship of an American trade initiative in the region. In President Obama's Suntory Hall speech, he expressed that, *" [the US] have a stake in the future of this region, because what happens here has a direct effect on our lives at home", and adding that, "as an Asia Pacific nation, the United States expects to be involved in the discussions that shape the future of this region and to participate fully in appropriate organizations as they are established and evolve"* (Obama, 2011[note], quoted in Ming-Te and Tai-Ting Liu, 2012).

The US government attempted to dictate to China's government on economic and political matters by pressuring for yuan revaluation in the early 2000s. Japan also demanded that the Chinese government revalue the yuan (Wei Ge, 2013; Zhang, 2012). The pressure for yuan revaluation started since the time of former President Bush Jr.'s administration. During the Bush period, Sino-US trade frictions and China bashing emerged. The government pressured the Chinese to correct the trade deficit so that American goods would be able to penetrate the Chinese market. The American government argued that cheap Chinese products in term of the US dollar had caused American goods unable to compete with Chinese goods in the world commodity market. There were too many "unpleasant voices and noises" from G-7 countries. So with the intention to preserve the export markets, in July 2005 the Chinese government de-pegged the yuan. However, the Chinese government still manages the exchange rate of the yuan against the dollar. Based on the USD/Yuan exchange rate trend, the Chinese government adopted a "crawling-pegged system". Since de-pegging, the yuan has appreciated and the appreciation of the yuan against the dollar is about 20%. The move to "manage" China by making their goods expensive or less competitive via exchange rates in the world economy in fact has failed. Therefore which I believed the TPPA was adopted as a second measure by the US to isolate and discriminate against Chinese goods in Southeast Asia and limiting China's ascendency in economy performance, and also to diminish China political influence in the region.

The Chinese Government's "Insurance Policies"?

China has suspected that the US deliberately excluded them from joining the TPPA. If both countries were at the negotiation table, these two major powers may have prevented the conclusion of the agreement. I believe that the US does not want to have another "strong" country in the group, otherwise the US will be unable to maneuver or "control" the bloc, ensuring that US interests will be preserved. Most political economists see that the TPPA as a plan to reduce China's presence in Southeast Asia. In an article published in the People's Daily, an official newspaper of the Communist Party of China, a journalist, Ding Gang, states that "*the U.S. does not want to be squeezed out of the Asia-Pacific region by China…(the) TPP is superficially an economic agreement but contains an obvious political purpose to constrain China's rise"* (quoted in Yuan, 2012). The Chinese government anticipated that there is actually "a conspiracy between the US and their allies, namely Japan, Australia, New Zealand and some members of ASEAN" to "kill" the East Asia Free Trade Area initiative that was proposed by the Chinese government in 1998, or to break-up ASEAN+3 and to dilute China's economic and political positions in Southeast Asia. President Obama's visit to countries in East Asia and Southeast Asia in early 2014 and in November 2010 have drawn attention as there were hidden discussions on issues pertinent to Southeast Asia and security in the South China Sea (SCS). President Obama's November 2010 trip to Asia was, *"America"s opening move in a new great power game unfolding in Asia*", as mentioned by Fareed Zakaria (2010). According to Zakaria, *the President hopes that a closer relationship* *between Washington and Beijing could be used to moderate Beijing"s behavior. The president also proposed American engagement with China's Asian neighbors, in the case China's rise turns increasingly negative*" (Fareed Zakaria, 2010). Between ASEAN and China, deriving a solution regarding economic benefits in the South China Sea and resolving sovereignty claims on particular islands including the Spratly Islands[4] have reached a deadlock. Diplomatic channels have failed to calm political tensions among Southeast Asian countries and their claims of sovereignty over islands and territories in the SCS while China remains stubborn in refusing to back off from its claims. The issue worsened when the Chinese government asserted its rights to regulate fishing across all reaches of the South China Sea[5]. In another occasion, in November 2013, the government announced an Air Defense Identification Zone over the East China Sea covering islands disputed with Japan[6]. The issue of the South China Sea including the Spratly Islands and other islands is the main obstacle for China in demonstrating a good neighbor policy Recently the Chinese government claimed that nearly all parts of the South China Sea belong to China. There have been occasions when the Chinese navy clashed with Philippine and Vietnamese marine and fisherman boats.

In November 2002 in Phnom Penh, Cambodia, members of ASEAN and China signed the Treaty of Amity of Friendship and Cooperation and the Declaration on the Conduct of Parties in the South China Sea (DOC) with the desire to promote peaceful, friendly and harmonious environment in the South China Sea. On July 21, 2011 in Bali, Indonesia, ASEAN and China adopted the Guidelines to implement the DOC. Although all parties signed a DOC to peacefully settle the dispute, so far it has failed to bring any successful solutions. China has not stepped back even an inch from its vast sovereignty claims over the SCS. This has become a flash point enabling outside powers to destabilize ASEAN-China relations (Ronaque and Mughees, 2013). The SCS issue suggests that the emergence of China is actually "dangerous" to stability and peace in Southeast Asia. ASEAN also fears that the South China Sea will become a battleground between China and the USA. They perceive the growing influence of China as a threat to regional peace. On the other hand, many members of ASEAN enjoy close relations and security cooperation with the US. ASEAN members regard the US as a key offshore balancer (Storey, 2007). In Singapore, the US has deployed four ships, while in the Philippines the US rotates 500 personnel as part of a new cooperation with Manila. It will also rotate 2,500 marines in Darwin (Ririhena, 2013).Therefore, it would be less troublesome for

4 Beijing claims sovereign rights to almost the entirety of the South China Sea (The Sun, May 2014). In January 2014, all foreign fishing vessels asked to apply for permission before entering a vast swath of the South China Sea.

5 ASEAN foreign ministers expressed serious concerns as to what is going on in the South China Sea. This South China Sea continues to be a litmus test for ASEAN (The Sun, May 2014).

6 Another worrying concern is that President Xi Jinping continues to upgrade and expand China's maritime power to safeguard its claims to the South China Sea and East South China Sea. This has increased fear among members of ASEAN including South Korea and Japan. The current move by Xi Jinping is to face the US pivot to Asia Pacific and East Asia and as a warning to the US to not interfere in the seas (Yoon, 2014).

the US government to preserve its interests in the South China Sea. The principal U.S. interest in Southeast Asia today lies in countering and ultimately moderating China's aggressive claims and behavior that threaten regional peace, security, and prosperity (Lohman, 2013).

As a kind of hedging against the negative impact or risk of the TPPA, China actively pursued other trade arrangements with its neighbors. The government engaged closer economic ties with Central Asia and Russia under the Shanghai Cooperation Organization (SCO). The SCO is an intergovernmental international organization founded in Shanghai on 15 June 2001 by six countries: China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan and UzbekistanSome believed that one of the original purposes of the SCO was to serve as a counter-balance to NATO and the United States and in particular to avoid conflicts that would allow the United States to intervene in areas bordering Russia and China. The SCO not only engaged in political and security matters but also enhanced a deep economic cooperation. The United States applied to be an observer in the SCO during the administration of George Bush Jr., but the application was rejected in 2006.

Another notable arrangement that the Chinese government is energetically involved in is the sub-regional development of the Greater Mekong Sub-Region (GMS) which was developed in 1992. The GMS is a regional economic cooperation mechanism within the Langcang-Mekong River Basin. The GMS covers the western part of China, Laos, Vietnam, Cambodia, Eastern and Northern part of Thailand and Myanmar. The Chinese government was seen as actively involved in the GMS. The GMS development has stimulated industrialization and urbanization of the region. Infrastructure development such as road and railroads were carried out extensively. Somehow the GMS has transformed the region into an economic and transportation corridor (Shrestha and Chungvilaivan, 2013). Two regions of China are involved in the GMS: Yunnan participated in 1992 and Guangxi in 2005. Yunnan total trade with GMS was about USD93.4 billions from 2005-2009 (Lu, 2013). The Chinese government via Yunnan has invested huge amounts of investments in various projects such as hydro-electricity, mineral exploration, electricity, processing trade, machinery and building materials. Seventy percent of these investments came from private enterprises (Lu, 2013). In 2009, China National Petroleum Cooperation (CNPC) received exclusive rights to build and operate China-Myanmar crude oil and gas pipelines.

Related to GMS, in May 2014 the Chinese government plans to begin building an economic corridor between the western part of China and Myanmar, Bangladesh, and the eastern and northeastern parts of India known as the BCIM corridor. The proposal of BCIM emerged at the Boao Forum for Asia which was held in China, Hainan province in April 2014. This proposed economic corridor covers about 1.65 million square kilometers. This region is a market of 2.8 billion people with a GDP of USD9.3 trillion in 2011. The BCIM corridor would be another region which will produce huge benefits to people and business communities of China. For this corridor development the Chinese government has proposed 20 projects worth about USD53.87 billions. The projects involve highways, airports, hydropower and wind power stations in the western region including Sichuan, Yunnan, Xinjiang and Tibet (Emanuel, 2014). The Chinese government has increased closer economic relations with countries in Africa and Latin America. China trade and investment to those countries have increased significantly. China has become a major trade partner for African countries. Trade between the two regions was over USD100 billion during the 2000s. African natural resources particularly crude oil represents an attraction for Chinese investors. China imports 30 percent of its crude oil from Africa compared to the US that imports about 15 percent from Africa (Majid, 2013).

Besides the above reasons, the Chinese government has started to focus on building up a strong diplomatic and economic relationship with her neighbours i.e Central Asia countries. In 1997 the Central Asian Regional Economic Cooperation (CAREC) was created. CAREC was proposed by Asian Development Bank (ADB) to encourage economic cooperation among countries in Central Asia. Most countries of Central Asia are land-locked, located strategically and have a solid connectivity. Surprisingly, CAREC includes only the China as a global trade actor for the region. As of 2013, 146 CAREC-related projects worth around $22.4 billion have been implemented in the four core areas of cooperation—transport, trade facilitation, trade policy, and energy (CAREC website). China actually has became one of the economic forces in Central Asia, with trade between China and the five Central Asian states rising from $527 million per year in 1992 to $30 billion annually by 2010 (CAREC website). China seems is turning to Central Asia. In a policy paper by Wang Jisi (Feng, 2014) which was presented in October 2012, encouraged the Chinese government to *"march westwards"*. As American government expanding their influence in the Far East, Wang suggested that Chinese policymakers should focus on developing China's economic and diplomatic relationships with its Western neighbours, i.e Central Asia (Feng, 2014). This is because cooperation and competition have not established yet in the region significantly (Feng, 2014). This actually a golden opportunity to Chinese leaders to solidify its international presence in Central Asia. This region should be a bigger target for Chinese government and investors to integrate the region firmly and as a bold strategy to ensure China presence and its relevance, and to shrug off American influence in the region considerably.

Another surprise move was made by the Chinese government in response to the US-led TPPA of April 30, 2014. China plans to explore the possibility of the development of the Asia-Pacific Free Trade Area (FTAAP) at the APEC meeting in late 2014. This move is a strategic counter to the US-led TPPA. Instead of focusing on the Regional Comprehensive Economic Partnership (RCEP) (to be discussed in a subsequent sub-section), China may be looking at the FTAAP as its other tool to mitigate adverse impacts arising from the TPPA toward China. FTAAP is the larger economic bloc that encompasses all 21 APEC members. Therefore, pushing the proposal will not just complement the TPPA but also absorb the 12 member TPPA within the larger free trade bloc. If this proposal is agreeable among APEC members, China effectively would be in the driver's seat, seizing the global free trade initiative away from the US and breaking the TPPA. Moreover, the FTAAP proposal also will mean that the RCEP is firmly established as the other cornerstone of the country's free trade policy (Lee, 2014) with

ASEAN losing its grip on the RCEP, meaning losing its place in leading the RCEP. The proposal of a possible development of FTAAP indirectly indicates China's aspiration for a global role and to install the country's position firmly as one of the world's economic powers.

The TPPA was seen as the most credible pathway to broader Asia-Pacific regional economic integration. However since the move made by Chinese to pursue FTAAP, which I believe as a countering strategy to TPPA-led by The US, and to ensure that China interests in Southeast Asia is preserved, so the TPPA seem to be no longer as a pathfinder to FTAAP. Chinese now on driver seat to navigate the possibility of FTAAP development. Therefore the American government wants the TPPA to grow into a regional FTA covering the 21 APEC countries seem to fall apart. Moreover, the FTAAP proposal also will mean that the RCEP is firmly established as the other cornerstone of the country's free trade policy (Lee, 2014) with ASEAN losing its grip on the RCEP, meaning losing its place in leading the RCEP. The proposal of a possible development of FTAAP indirectly indicates China's aspiration for a global role and to install the country's position firmly as one of the world's economic powers.

China, ASEAN and RCEP

Since the early 1990s, ASEAN was the main architecture and a driving force in integrating all countries in Southeast Asia into a form of bilateral economic partnership, i.e., free trade area. With the development of the East Asia Economic Caucus (EAEC), ASEAN+3 and the East Asia Summit initiated by ASEAN. These regional arrangements expanded and enhanced ASEAN's role, it relevance and centrality in Southeast Asia. However, ASEAN's centrality is now challenged by many new and overlapping economic cooperation arrangements in the region including the TPPA. ASEAN aims to preserve its centrality to economic co-operation within Southeast and East Asia may fall apart. The Trans-Pacific Partnership agreement which steered by the United States of America government is regarded as a major threat to ASEAN role.

The "Asia-centric" approach differs from the US-led TPPA negotiations in terms of its non-binding and voluntary approach as opposed to the strict and binding track of the TPPA. The TPPA actually has a pronounced "non-Asian" flavor to economic integration efforts in Asia. For several economies negotiating the framework of the TPPA common to other "Asia-centric" negotiation frameworks as well, the challenges of complying with the two different approaches and their demands can be daunting. The TPPA will affect ASEAN's role as a driving force in the various regional arrangements in the future is likely to decline. Another potential factor that could reduce ASEAN's role and relevance in Southeast Asia is the rivalry between the US and China in the region. The idea of the RCEP was to reconcile the two long-standing proposals into a large region-wide trade agreement, i.e., the East Asian Free Trade Agreement (EAFTA) that included ASEAN, China, Japan and South Korea and the Comprehensive Economic Partnership (CEP) comprised of Australia, India and New Zealand. The RCEP will establish a deeper economic cooperation than the existing FTA agreements. The RCEP was suggested by ASEAN at the ASEAN leaders summit in Bali, Indonesia in November

2011. At the East Asia Summit on November 20, 2012 in Cambodia, the leaders of the 16 participating countries endorsed and launched the RCEP framework. In May 2013, participating countries began the negotiations and are scheduled to conclude by the end of 2015. The RCEP was put forward to avoid Japan and China fighting for controlling regionalism in Southeast Asia. Since most members of RCEP exhibit stable economic growth the RCEP seems to be attractive to Japan and China.

The RCEP was suggested by ASEAN at the ASEAN leaders summit in Bali, Indonesia in November 2011. At the East Asia Summit on November 20, 2012 in Cambodia, the leaders of the 16 participating countries endorsed and launched the RCEP framework. In May 2013, participating countries began the negotiations and are scheduled to conclude by the end of 2015. The leaders stated that the RCEP would be a modern, comprehensive, high-quality and mutually beneficial economic partnership agreement, establishing an open trade and investment environment in the region to facilitate the expansion of regional trade and investment and contribute to global economic growth and development. RCEP will covers trade in goods, trade in services, investment, economic and technical cooperation, intellectual property, competition policy, dispute settlement/legal and institutional issues and other issues to be identified during the course of negotiations. The proposed partnership would support the spread of global production networks particularly among its members and reduce the inefficiencies of multiple Asian trade agreements that presently exist. If the RCEP materialized, overlapping FTAs agreements mentioned earlier and that are as confusing as a “noodle bowl” of multiple trade rules, would be eliminated.

Prior to the RCEP development, Japan and South Korea favored and suggested ASEAN plus 6 other countries (China, Japan, South Korea, India, Australia and New Zealand). However, China initially wanted to have ASEAN plus 3 (China, Japan and South Korea) included in the pact. However a counter proposal from the American-led TPPA in which China is excluded, may have changed China’s intention toward ASEAN+ 6 so that the RCEP was warmly accepted by the Chinese government.

The RCEP and TPPA are multi-track and multi-speed arrangements that will alter and re-shape regionalism in Southeast Asia. The TPPA and RCEP seem to have become rivals to each other in the present and in the near future. The RCEP group has a total population of over 3 billion people representing 49 per cent of the world’s population. Based on 2012 data, the RCEP has a combined GDP of about $21 trillion, roughly accounting for 30 percent of world total GDP, and a trade share estimated at around 27 per cent of global trade. Trade share within the region is about 44.12 percent and makes up 26 per cent of the world’s FDI inflows. The huge trade is directly linked to three of the largest economies in the world, China, India and Japan. The RCEP would create the world’s largest trading bloc compared to the TPPA. In the case of the TPPA, the total population of the group is about 800 million. Based on 2012 data, the TPPA group share of global GDP is approximately 38.2 percent, trade share within the region about 41.6 percent, and trade share near 22 percent of global trade. Based on these figures, the RCEP appears to be more promising than the TPPA.

Therefore, competition to dominate the region would seem to be between the ASEAN-led RCEP and the US-led Trans-Pacific Partnership (TPPA). Even though the RCEP and TPPA have quite similar objectives such as trade liberalization and economic integration, the RCEP is less ambitious than the TPPA. The ASEAN-led RCEP is a more 'Asian approach' of gradual trade liberalization. The US-led TPP is quite aggressive and plans for deeper economic integration than the RCEP. The TPPA covers not only those issues included in a regular FTA, but also includes provisions for non-economic issues as elaborated in the previous sub-section so that it will be difficult for developing countries to agree on. In contrast, the RCEP offers flexibility, for example, allowing for decisions to be made through any agreed modality and enabling special and differential treatment of ASEAN members enabling a more generous consideration of each nation-state's needs. The RCEP appears to be more inclusive and flexible as it was designed to cater to diverse circumstances and development gaps within ASEAN and between ASEAN and its FTA partners. The two agreements are quite different in their approach, process and potentially quite different in outcomes. The TPPA has completed 21 rounds of negotiations while the RCEP is still in its early stages with the sudden rise of the RCEP due to many concerns in Asia has about the TPPA.

In line with its pivot toward Asia, the US has led the expansion of membership of the TPPA and the government has encouraged other APEC countries to join the group. The rationale for expanding the membership of the TPPA is to meet economic challenges that the US would face in the 21st century. Additionally, if more countries join the TPPA this would mean that the US role in Asia Pacific and Southeast Asia is acknowledged and would eventually marginalize China in these regions. The US-led TPPA and ASEAN-led RCEP may fall into conflict. Competition between the two groups has the potential to divide ASEAN members and Southeast Asian countries. China and India are not presently part of the TPPA negotiations. If both of these economies joined RCEP (both countries are already in the group), their membership could build a new configuration game in Southeast Asia and pose a challenge to the TPPA. The TPPA and RCEP are game-changers in regional economic governance and architecture. There is political tension between the US and China where each country wants to shape economic cooperation in Southeast Asia in order to secure each of its economic interests. Consequently, rivalry between these two countries might become the predominant factor in how the regional economic architecture will be developed as an entirety encompassing Southeast Asia.

Since the US is aggressively pushing the TPPA among APEC members, ASEAN countries realize that its role in economic integration in Southeast Asia maybe be weakened if the TPPA materializes and is able to attract other countries into joining the group. A fear is that the US will eventually remove ASEAN leadership or marginalize the leadership's role in the region. The US has succeeded in strengthening economic and political ties with a number of ASEAN members since Obama became President. Therefore, the US rebalancing strategy may produce an impact on the centrality of ASEAN in regional cooperation. Furthermore, the TPPA could be used to rebalance Asia against China's rising influence. The American media has suggested that the TPPA is being used to counteract China's economic influence in the region. President Obama clearly stated in his election campaign that he would promote the TPPA in order to pressure China into adhering to international trade rules and international law.

This author suspects that the US attempt to re-balance its strategy in the Asia-Pacfic region has motivated ASEAN speeding the realization of ASEAN+6 or plans for the EAFTA in which this framework would maintain ASEAN relevance in Southeast Asia. Therefore, the development of the RCEP will stand against the TPPA. The RCEP hopes to slow down the process of the US-led TPPA or even destroy it altogether. China is an important driving force for achieving the RCEP. China always respects and supports the leading role of ASEAN in regional cooperation. At the same time, China is concerned about the TPPA that excludes its participation in negotiations. Up to now the nature of the TPPA is still ambiguous and is presumed to be part of the US program to contain China. Therefore, it is obvious that China supports RCEP in reaction to the potential risks.

Conclusion

One of biggest questions in regional economic integration development in Southeast Asia is the role of China and how Japan and its allies confront the emergence of Chinese power in the region. Japan is more concerned with monetary matters or trade gain rather than building coherent and sustainable relationships with other countries in Asia including members of ASEAN. Since China has established economic linkages with ASEAN and has become the third largest trade partner to the organization, this has produced concerns for the US and Japan and their close allies. The US and Japan are worried about the growing economic and political influence of China in Southeast Asia. Therefore they plan to block realization of the Chinese government's vision to become the leader in regionalism and economic development in Southeast Asia. The Obama administration committed that the US would safeguard US and US allies' interests in Asia-Pacific and in Southeast Asia. One solution is the US joining and leading the TPPA since December 2009. Through the TPPA, the US is attempting to avoid any marginalization in trade and market access in the region. China will be affected economically and politically by the US-led TPPA. As a hedging strategy to US involvement in Southeast Asia and Asia Pacific via the TPPA, China has promptly developed new economic engagements with neighbor countries in South Asia and Central Asia. However, the issues around the South China Sea may derail China's effort in maintaining pleasant economic and political ties with members of ASEAN developed since the early 1990s. If the relationship between China and ASEAN is heading toward political tension, we may see the US leading the Southeast Asia and Asia Pacific regions, sidelining China and ASEAN.

The US-led TPPA may cause serious implications to ASEAN's role in integrating countries in Southeast Asia. ASEAN has signed comprehensive trade liberalization packages with non-ASEAN members such as China, Japan, South Korea, Australia, New Zealand and India. Whether the approach is ASEAN+3 or ASEAN+6 is feasible, the main argument in this article is that the TPPA will complicate matters between governments by liberalizing trade under the existing free trade agreement. Furthermore the TPPA is not an "ordinary" FTA agreement. It is a mini-multilateral trade liberalization which covers not only market access, but a number of critical subjects negotiated under the Doha round and brought into the TPPA. If TPPA is finalized it will undermine the effectiveness of ASEAN in developing fair and equitable trade liberalization.

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PAPER

External Imbalances in EMU. Reforms, Austerity and Funding

Antimo Verde

Abstract The paper is about external imbalances in the EMU, from the euro's inception on. This lapse of time - 2000-14 - has been divided into three periods each of them defined on the basis of what is deemed to be the-moment-prevailing theoretical scheme: *the competitiveness model, the excess of savings or insufficient domestic demand, the change of International Investment Position, or BoP funding.* The first period (2000-06) highlights the crucial importance of structural reforms to address - in normal situations - member states' competitiveness losses. Consequences and cures of the 2007-2010 external imbalances have been heavily affected by the austerity policies. Finally the third episode of the BoP imbalances has been discussed on the basis of a very peculiar institutional mechanism designed to fund, when the national banking system needs it, the intra-eurozone transactions, or TARGET2. Theoretical schemes of the external imbalances episodes are identified on the basis of undisputable aspects and not according to econometric estimates, as they could bring to the wrong conclusion. (McKinnon [2013]. The external imbalance topic is one of the most interesting and complex problems of an *incomplete* monetary union, such as the EMU. Indeed, all the papers dealing with "external imbalances in EMU" more or less implicitly maintain that we have to do with a *true* monetary union. Still more important is, according the paper, the interaction between external imbalances and the EMU policies and institutional framework, which is usually ignored, as though it were unimportant. This paper aims at detecting the *crucial role that policies and institutional aspects assume in defining causes, consequences and cure of external imbalances. In a word: in defining the right model of imbalances. This is particularly important when we talk about monetary union. But this aspect has been utterly overlooked.* This paper aims at filling this lack. In particular we also try to elucidate links between structural reforms, austerity and current account imbalances.

Keywords Current account adjustment - EMU - Financial crises and sovereign crises Payment system

JEL Classification F32 - F44 - E44 - E42 -E52 O52

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1. Introduction

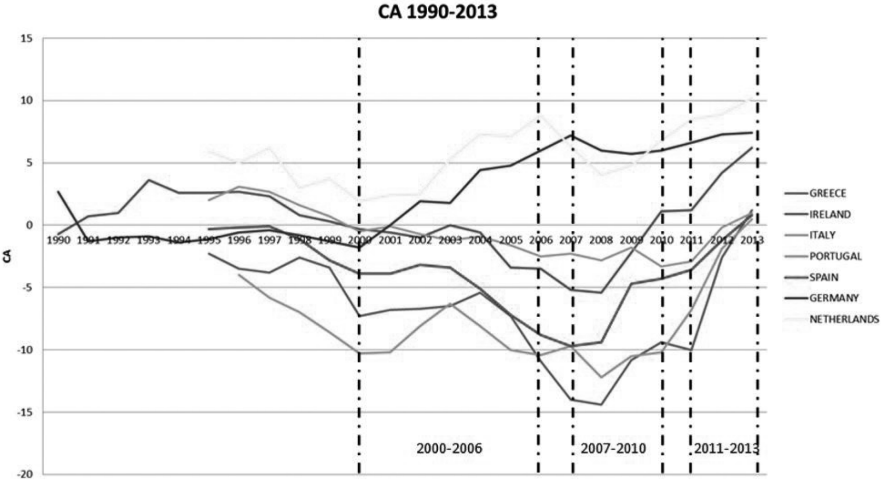
Since Bernanke's speech in 2005about the *saving glut,* external imbalances have known a new and growing importance. They favoured the 2007-09 global crisis and, later, they made the EMU slip in the 2011-13 sovereign crisis. By 2011, the macroeconomic imbalances-including the external ones- attracted the Commission's attention as a possible cause of turmoil within the euro Area. In that year the European Commission adopted the Macroeconomic Imbalances Procedure designed to avert or fix eleven types (scoreboard) of economic imbalances, in first place the external ones. Since then, studies on external imbalances have concentrated on current account deficits and on countries suffering from these imbalances; more or less sophisticated theoretical models- e.g intertemporal current account model, with traded and non traded goods– have been developed (Chen at al.[2011]). Yet, peculiarities concerning the European Monetary Union and their impact on the causes, consequences and cures of external imbalances have been fully overlooked. In particular two peculiarities: a) the incomplete nature of the EMU; b) the relationship between external imbalances and the Union's policies and those institutional aspects which interact with them. All the papers dealing with "external imbalances in EMU" more or less implicitly maintain that we have to do with a true monetary union. Still more important, the interaction between external imbalances and the EMU policies and institutional framework is ignored, as though it were unimportant. On the other hand, it is impossible to assess the implications of the incompleteness of the union for macroeconomic imbalances. But we can say some things about point b), i.e the relationship between EMU policies and institutional framework (when relevant) and external imbalances. This paper is about this relationship. In particular, on the basis of the actual external imbalances surfaced in EMU since the inception of the euro. The period 2000-14- has been divided into three periods each of them defined on the basis of what is deemed to be the-moment-prevailing theoretical scheme. Moreover, the paper will focus on the interaction between structural reforms, fiscal austerity and external imbalances and on the relationship between the system of intra banks payments for external transactions of member states and imbalances among them. This latter (institutional) aspect will bring us to concentrate also on the capital account of the BoP, as well as on a rather complex mechanism of settlement within the Euro-system of National Central Banks which protected weaker member states from capital reversals during the 2011-13 sovereign crisis. Theoretical schemes of the external imbalances episodes are identified on the basis of undisputable aspects and not according to econometric estimates, as they could bring to the wrong conclusion. (McKinnon [2013]).

The two following graphs play a fundamental role in this paper. Figure 1, refers to the CA evolution from 1990 to 2013. It allow us to identify three periods or episodes of external imbalances within the euro area:

a. from 2000 to 2006;
b. from 2007 to 2010: when the external imbalances significantly widen and overlap growing fiscal imbalances;

c. from 2011 to 2013 when imbalances were not limited to the CA component of BoP and pushed the euro area in a dramatic crisis.

Figure 1 CA evolution from 1990 to 2013

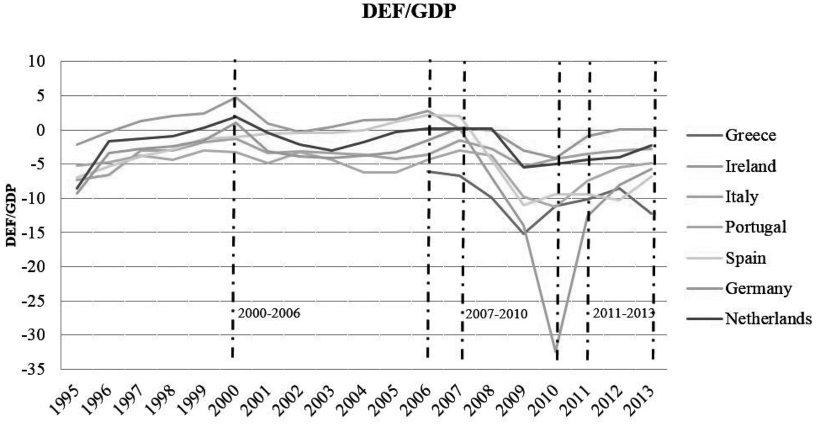


In the first period (2000-2006) current Account (CA) imbalances become important and as concerns the policy aspect of this first episode it appears interesting for the claims of deficit countries or GIIPS to carry on structural reforms of labour and goods markets aiming to provide their economies with more wage and price flexibility. This episode assumes a general value, i.e. untied from the existence of a currency union that the following two episodes haven't[1]. Imbalances b) and c) are more intriguing, from policy and institutional point of view. The paper is about the crucial link between external imbalances and the fiscal austerity policies, imposed by the union (or the union's boss) and carried out by deficit countries. This link is particularly clear-cut in the period 2007-10 when external and fiscal imbalances overlap each other. This is evident if graph1 and figure 2 are jointly glanced. The two imbalances, though, did not assume the same importance because the sole "pillar" of institutional policy framework was the fiscal commitment. While the crisis winds shattered the EMU, external imbalances were not excessively important, but they were about to narrow thanks to austerity adopted to cope with fiscal imbalances.

Finally the paper is about the imbalances favouring the 2011-13 sovereign crisis which harshly hit the EMU. In this case, external imbalances assumed a peculiar shape, reflecting themselves in particular imbalances within the intra-eurozone payment system or TARGET2. We talk in this third case, of external imbalances, even if capital reversals and high involvement of balance sheets of National Central Banks and ECB make them absolutely particular.

1 For instance " Recent developments have highlighted the urgent need for some euro-area Member States to restore their external imbalances and to improve their competitiveness" is a sentence which it is to read in policy reports.

Figure 2



The paper is structured as follows. In the next section I focus on external imbalances in the years 2000-06. They seem to be explained by the neoclassical price or competitiveness approach. As such, they give adequate rationale to the role of structural reforms in improving a country's competitiveness. The relationship between external, fiscal imbalances and austerity is discussed in section 3. Austerity seems to allow the periphery countries to kill two birds with one stone. Section 4 touches a different case of external imbalances, those surfacing in the 2011-13 years. In it we have been forced to dwell on the intra- euro area payments system or TARGET2. Section 5 concludes.

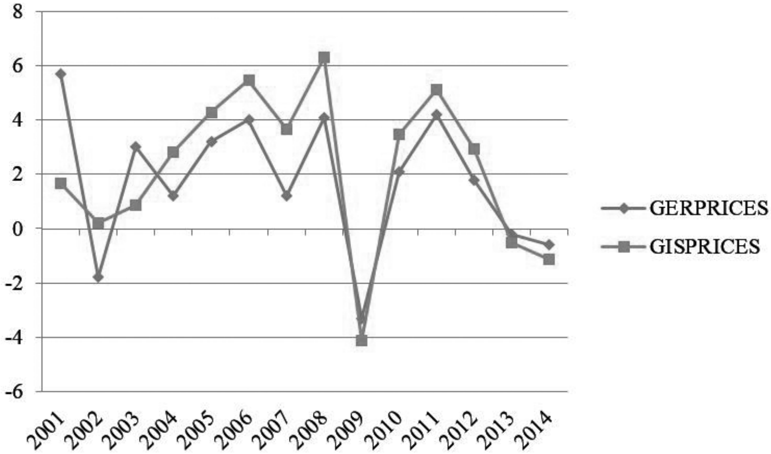
2. The External Imbalances in EMU: Devaluation, Structural Reforms and Competitiveness

From 2000 on, external imbalances become a steady figure of the EMU economic situation. Germany, Netherland and (not reported in the graph) Austria, Finland are the CA surplus countries; Greece, Ireland, Italy, Portugal and Spain (GIIPS) those in deficit.

Let's consider the period from 2000 to 2006 when imbalances appear, all in all, sustainable. In this period, important structural reforms were adopted by the German government, led by Gerhard Schroder, i.e the labour market reforms, known as the Hartz Reforms (2002-2006). In Germany, these reforms favoured labour productivity, while keeping the rise of wages to levels lower than that of productivity. (M.Wolf [2014]) This is the leading sentence of this period. Consistent with it is the following statement:

"The shifts in relative prices between different euro area countries were sizable, with consumer prices and unit labour costs rising very significantly in the euro area *periphery* relative to the euro area core, and particularly vis-à-vis Germany" (Chen et al. [2012, p. 6), moreover a declining competitiveness of tradeable goods in *periphery* countries surfaced. (Blanchard 2007); Data of figure 1 and 3 seem consistent with these sentences. Summing up: 2000-2006 external imbalances seem due to differences in competitiveness between core (Germany in primis) and periphery countries.

Figure 3 Producers prices of Germany and GIIPS (% changes)



Producers' prices allow us to conceive a very simple "two-country" model of the etiology of CA surpluses and deficits in EMU, according to the remarks a) and b), hereafter our hypotheses.[2]

2.1 A very simple two country model of CA surplus

Let us suppose that the two "countries" -Germany and the GIPS group (Greece, Italy, Spain and Portugal considered as a single "country") have the same-parameter Cobb Douglas production function:

1) $Y_G = A^{\alpha} L^{\beta} 1$ 1*) $Y^* = A^* K^{\alpha^*} L^{\beta^*}$

where : Y= output (GDP) , A= total factor productivity variable summarizing the current state of technical know-how, K= capital stock, L=Labour, α and β are the elasticities of output with respect to the two factors, K and L, G stands for Germany and * for GIIPS

$\alpha + \beta = 1$ and are equal to the ratio between marginal and average productivities:

$\alpha = F_k /(Y/K)$ $\beta = F_{L'} / (Y/L)$ where $F_{K,L}$ are derivatives of Y respect to K and L, i.e. marginal productivities. According to our hypotheses German marginal labour productivity F_L is higher than GIPS', and German real wages are lower than marginal productivity as well. Thus we can write:

2) $F_L > F^*_L$ and

3) $W_G / P_G < F_L$ 3*) $W/P^* = F^*_L$ where W= wages.

Equation 4) and 4*) refer to the producer prices determination according to a mark-up, μ, on the unit labour costs is equal in the two countries:

4) $P_G = (1+\mu)\ W_G / F_L$ 4*) $P^* = (1+\mu)\ W^* / F^{*\prime}_L$

where: P_G= German producers prices; P*= GIPS producers prices; μ = *mark-up*,

2 We prefer a two country model based on the producer prices of both of them, instead of tradable and not tradable prices of one country, because it is suitable when talking about external imbalances, which by definition has two faces.

assume equal in the two "countries"

Given the previous hypotheses 2) and 3), it will be: $P_G < P^*$.

The following equations 4) and 4*) refer to the real exchange rates, Q_G and Q^*, which are given by the ratio between the prices of the two "countries" both expressed in terms of euros. Then:

4) $Q_G = P^*/PG$ 4*) $Q^* = PG/P^*$

where $Q_G > Q^*$, i.e. the German real exchange rate is depreciated compared to the GIIPS'.

This means that German goods are more competitive. The result of Germany's higher competitiveness will stem from eq.5 regarding the current account determination of surplus CA:

5) $CA_G = \gamma_0 + \gamma_1 Q_G + \gamma_2\ WD$ 5*) $CA^* = \gamma_0 + \gamma_1\ Q^* + \gamma_2 WD$

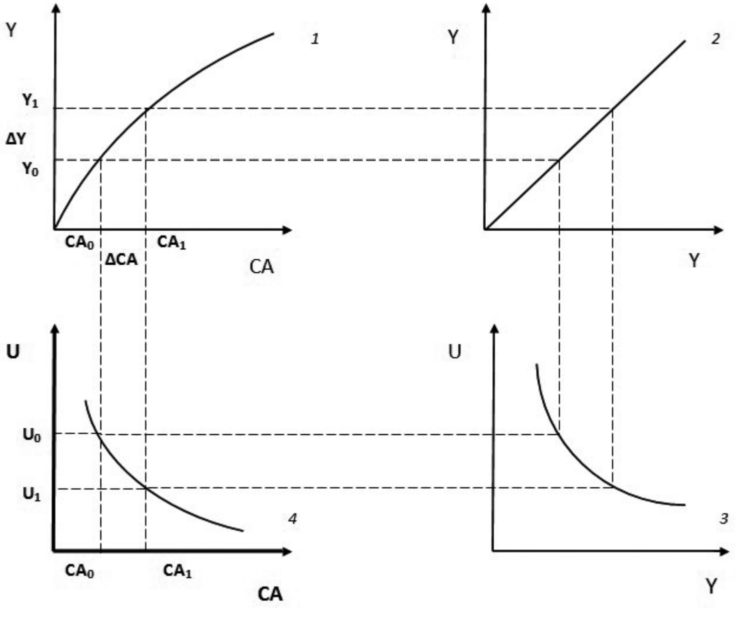
variables are log, and γ_1 is the elasticity- equal in the two countries- of CA with respect to real exchange rates and γ_2 is the elasticity of CA with respect to the World Demand (WD). Both γ_1 and γ_2 are > 0 and Q_G rises.

Let's start from a situation of CA equilibrium. Let's introduce our hypotheses. Then, if the Marshall-Lerner condition holds, $\delta CA/\delta Q > 0$ ie. Germany will record a CA *surplus*.

2.2 The impact of external devaluation in a monetary union: a graphical example.

It could be interesting to sum up the impact of the economy of our hypotheses. We focus on two variables: current account and unemployment rate, which assume a crucial role in our reasoning. In fig.4 we consider the impact of Germany's CA surplus produced by external devaluation of real exchange rate, $Q_{G,}$ on output and unemployment. In our example, this devaluation stems from moderate relative price growth linked to the structural reforms.

Figure 4 The external devaluation in a monetary union



In fig.4 the scheme adopted is a [CA. u] type, i.e. able to highlight the impact of the CA improvement, produced by the external depreciation, on the unemployment rate, u. In panel 1 we have the relationship between income Y and CA drawn from a very simple Keynesian model, reported below. The curve is positively sloped. Relative prices don't appear explicitly but they affect CA according to equation 5. Thus once German industry can exploit its comparative advantage due to the structural reforms (eqq 2 and 3), the CA will improve, provided that the Marshall-Lerner condition holds, and with it also the German GDP, or Y, will increase. Panel 3 shows the relationship between the unemployment rate (u=1- N/FL) and Y, where the labour demand depends on income: N= δ_0+ δ_1Y. Thus when Y increases, the unemployment rate decreases from u_0 to u_1. Finally panel 4 shows the relationship [u, CA] between CA and the unemployment rate: an improvement of the RER leads to a reduction of unemployment.

Equations panel1	Equation panel3	Equation panel 4
Y= A+X (S)- M	U= [FL-N]/FL	u= $\alpha - \beta$ CA
A= a0+a1Y	N= δ_0+ δ_1 Y	
M=b0++b1Y	U= 1/FL (1- δ_0) - 1/FL δ_1 Y	
CA= X (S)-M		
ΔY= 1/[(1-a_1)m] ΔCA		
m= (1-a_1+b_1)		

2.3 Policy implications: structural reforms and their limits

What about policy implications of structural reforms as way to improve competitiveness and then current account imbalance? Doubtless the most important lessons are that structural reforms are crucial in increasing the labor and goods markets flexibility and then in reducing costs and prices. In this case, the theoretical scheme implies a wage-price adjustment, as in the model just shown. Structural reforms allow modern economies to sidestep problems given by generalized nominal and real rigidities characterizing them. Thus if the country's exports are price sensitive, *current account* improvement will result. Then reforms would bring with them clear-cut benefits, stemming from the supply-side of the economy.

But this supply-side aspect are not, *ex se*, sufficient to ensure the reforms success. To this end, an adequate level of domestic demand is needed. In particular, structural reforms, coupled with a strong dose of high-quality- infrastructures public investment and /or private consumption would see exalted its effectiveness. Higher internal demand allows to exploit reforms' benefits to the maximum extent. Usually the recovery of net exports is not sufficient from this point of view.

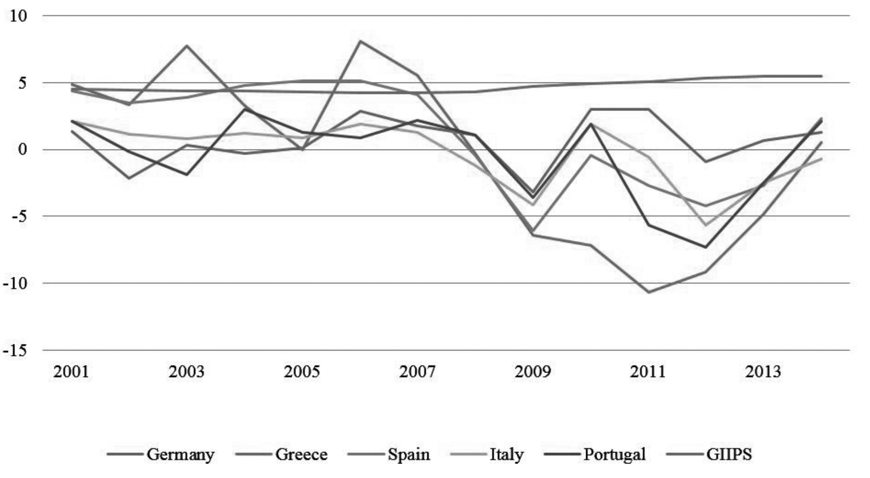
We might express this point, linking labour marginal productivity (which is proper with respect to the unit labour cost) and total factor productivity to the internal demand for consumption and investment, as the following equation shows:

(6) $F_{Lt} = \varphi_0 + \varphi_1 \Sigma I_{t-k} + \varphi_2 C_t$

where, I= investments, C= consumption and where the expected impact of investments will last eventually exceeding the C's.

Then, structural reforms to be effective need a buoyant *domestic* demand. Keynesian policies could help in spurring it. But, in the weakest countries- which need reforms - these policies are normally rule out by the EMU fiscal constraints and internal demand go down (fig 5)

Figure 5 Internal demand in EMU (% changes)2001-2013



Anyway, structural reforms benefits could be evident only in the long run. Finally, and more important, winners and losers will stem from economic reforms. Thus a fierce opposition is expected, if a political consensus about them lacks. They could be postponed or forced to miss their tip. This is not an unthinkable outcome of reform projects in some EMU weakest countries.

Summing up: to say that economic reforms are not important or to difficult to carried out is not correct. It is correct to maintain that, to be effective, they should meet at least a couple of pre-requisites: a tonic internal demand, a widespread political consensus.

3. External imbalances in EMU and austerity

In this second period we are diving in one dramatic period of the globalized world. We start with the global crisis (2007-09) and we will end when sovereign crisis comes out. Glancing both figures 1 and 2, we can detect that *two* serious imbalances have surfaced overlapping each other: the *external and fiscal* imbalances. In Maastricht Treaty terminology, *fiscal imbalances* occur when one or more member states breach one or more EMU fiscal constraints :for instance the ceiling imposed to the deficit/GDP ratio of 3 per cent, or the *six pact* ceiling of 60% for the debt/GDP ratio.

In general, at least in the period we are talking about, these two imbalances were not equally feared, at least for a couple of reasons. Because: a) meeting fiscal commitment was the pillar of EMU policy framework; b) for a long time economists and policy makers were convinced that in a monetary union current account would not matter, at least under the funding point of view. This prediction soon revealed itself absolutely wrong in the EMU case. However, these two points put us in a condition to understand why fiscal imbalances were extremely important and targeted by national and union policies. Not so for the external imbalances.

As we know, fiscal policies of austerity reach their apex in these years, to fight growing deficits.

"The most powerful country in Europe, Germany, was deeply committed to a strategy of austerity, and skeptical of forceful financial rescues. I had met Schauble ,a survivor of an assassination attempt that left him in a wheelchair, he had a clear view that .nations with unsustainable deficits had to go on a strict diet, even though it would cause pain for their citizens" (T. Geithner [2014] p.447, adapted)

Moreover. the European institutions, based in Brussels, believed that austerity was the obliged choice, the final objective being to put or maintain the control on public deficits and debt.[3] However, we continue to focus on external imbalances. Regarding these questions, we are about to answer:

a. which are the causes of external imbalances ?
b. what about the nexus between the external and fiscal imbalances?
c. what about the debate which ignited in this period, and doomed to re-emerge in 2015, about the effectiveness of austerity?

a)Let's start with the ***causes*** of external imbalances. In the considered years, the EMU countries took full profit from the most important benefit stemming from the participation of the euro area: the drastic reduction of interest rates. In general, this unexpected – at least as it concerns its dimensions- cut of interest rates brought with it the increase of private and public demand, the fall of household savings, inflows of foreign capital, and eventually the CA slipping into deficit (Fagan and Gaspar[2007, 2008]). In other words, adequate foreign financing sources (Jaumotte et al.[2010]); the excess of investment compared to internal savings, (Uxo et al. [2011]) justify the large and growing CA deficits of the periphery countries or GIIPS (Greece, Ireland, Italy, Spain, Portugal) in 2007-2011. Indeed, in some cases, deficits were due to higher investment, in others to lower savings. The cases of Ireland and Spain are interesting. Their CA deficit was clearly due to private investment growing at sustained pace, significantly exceeding that of internal savings. These investments were largely funded by foreign capitals, but they were realized in non tradable sectors: above all, construction. That is, in sectors enables, by definition, to generate currency flows to pay back foreign loans. Thus, persistent CA deficits led the two countries towards external imbalances, sluggish economic growth, and eventually to the worsening of budgetary stance or fiscal imbalance. This imbalance, then, had its roots in the external one. It is worth noting that at the beginning of our period both the Irish and Spanish fiscal stance was absolutely reassuring, very

3 For a deep analysis of the EMU's austerity policy and of the German finance minister Wolfgang Schauble's role, see Geithner T.([2014], ch. Eleven).

close to the equilibrium (Spain) or in surplus (Ireland). Fiscal imbalances, unthinkable still in 2006 surfaced because of the low quality of private investment funded by foreign sources. (Giavazzi e Spaventa [2010]).

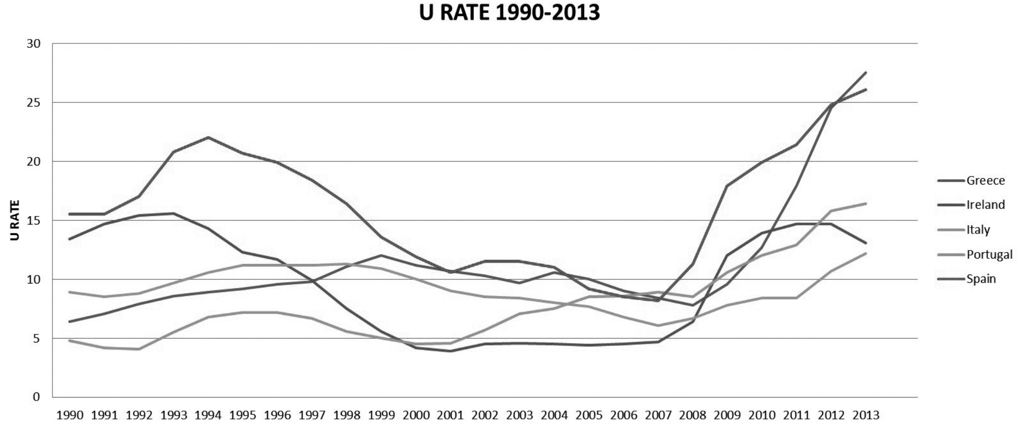
However, in this period, fiscal imbalances in the GIIPS area were due to a growing level of public spending exceeded State revenue. On the other hand, household and firms were pushed to consume and to invest by the low level of interest rates and, above all, by large amount of foreign financial resources. International financial markets profligacy appeared based on the widespread impression that in a currency union, such as the EMU, the German and Italian or Greek bonds were equally risky. This impression will change from 2010 on, for reasons we will identify later.

Summing up: the external imbalances of this period are due to an excess of internal absorption over the overall spending or income (Alexander [1952]). Y= A+CA, where Y is income; A= C+I= domestic absorption, or in equivalent terms C+S= C+I+ CA where S= savings, I=investments and then CA= S-I. In the GIIPS area happens that A > Y, I > S and then CA <0. In other words, the underlying model is completely different from that based on the competitiveness changes stemming from the gap between internal absorption and income or between internal investment and saving. It has been possible because private financial markets have been available to fund the excess of GIIPS' spending.

But let's turn to point b). Figures 1 and 2 show the overlapping imbalances-external and fiscal continued to characterize this period. We have already hinted how they are linked to each other. But this paper chooses a particular nexus between them. Usually, imbalances can be described by the following sequence: causes, consequences and cures. The nexus between external and fiscal imbalances here chosen is in the last phase, that of cures. Indeed we will show how fiscal policies adopted by GIIPS in the attempt to meet again fiscal rules constraints have allowed de facto those countries to substantially solve the external imbalances. With the exception of Greece. More in general, we can say that fiscal tightening will lead to an improvement of CA imbalance, even if we do not know it is limited to the short run; on the contrary fiscal expansionary policy adopted by GIIPS could not avert a worsening of it. In other words the problem of the two imbalances have been temporary solved by the fiscal austerity, that is by fiscal policies adopted by national member states aiming to meet again the EMU fiscal constraints. The reason of this nexus is clear-cut: fiscal policy affect variables, such as C and I, which are crucial determinants of imports and of CA balance. That is why external imbalances have been linked here to the fiscal austerity.

b) Two imbalances. In this period, austerity is the watchword all across Europe in particular starting from 2008. But the debate on austerity soon ignited in all member states and is still under way. The effects of austerity – on the economic growth and on unemployment- have been such as to push toward a reconsideration of fiscal austerity programs. Figure 6 shows how the unemployment rates soar starting from 2007 when austerity was getting more severe.

Figure 6 The unemployment rates in EMU



c) Austerity debate. While starting from the end of the observed period, the conviction that there should be something wrong in rigid austerity as well in the neoclassical theories supporting it gained a growing and widespread consensus. Here we propose a stylized model showing the crucial features of a corrective fiscal policy designed to meet fiscal rules and, with it, to improve the External imbalance. It is a "two country" model: Germany and GIIPS, considered as a unit. In the following discussion, GIIPS is suffering from a fiscal imbalance, i.e.it is breaching EMU constraint and it is pushed by the European Commission to cut public spending and increase taxes.

3.1 A two country-model of CA and fiscal and external adjustment

The union is divided in Germany and GIIPS. Variables of the latter group are * marked. The model aim at highlighting: a) the corrective fiscal policy adopted by GIIPS breaching-rules to push back fiscal aggregates under the target values; b) the interrelationships between the economies of the two "countries" relevant for the external and fiscal imbalances correction.

Let's start with the fiscal adjustment in EMU, or point a)

Our discussion leaves Germany aside to concentrate on GIIPS. This "country" has breached the fiscal constraint of 3% and it is called to contract its deficit. Monetary policy is *common* to both groups of countries and is caught by the ECB Taylor's rule. The exchange rate is not a policy tool[4]. In this scenario, where fiscal policy is the sole policy instrument of member states, its aims at increasing taxes and/ or cutting spending, in the attempt to reduce fiscal deficit under the ceiling of 3 per cent. Once this policy is actually adopted, internal demand – or absorption- is cut, relative to income, producing a CA improvement. This is a by-product result of fiscal corrective action, consistent with the absorption approach to the current account, if $\Delta A > \Delta Y$

4 De facto both monetary and exchange rate policies don't play any role in the following model. This could be an obvious limit of the model as the two countries have – by hypothesis- different inflation rates and then are involved by the Walters critique. However in our exercise we take both policies aside.

3.1.1 The model: a synthesis

The model is old Keynesian. This choice is not causal[5]. The first equation is a Taylor rule[6] which substitutes the usual condition of perfect capital mobility or uncovered interest parity, since we are in a monetary union. Eq. 2 concern prices which are divided according to the origin of goods: domestic and foreign. Eq.3 is a traditional Phillip-Lipsey curve. Labour market is completed by eq. 3-5 regarding the unemployment rate, the labour demand and labour income. Labour mobility between the two countries is ruled out. Definition of disposal income is crucial in our case: tight fiscal policy (austerity) will mainly act through income taxes (IT) and public transfers to households (TR). Equations of internal demand and current account follow. Public sector is limited to eq.13-16 : according to the first one income taxes are estimated as the product between tax rate and nominal GDP; eq.14 concerns the public transfers linked to the cyclical evolution such as the unemployment subsides, eq.15 defines the actual public deficit, F. The last equation makes endogenous the deficit consistent with the constraint of 3 per cent of GDP, F°. If F> F° fiscal corrective action is needed. The respective dimensions depend on the elasticity deficit/GDP times the Output Gap: φ OG. In the model the square brackets in the eq. 13-16 aim at catching corrective fiscal measures.

A Stylized "two-country"model of policy adjustment of fiscal and external imbalance[c]

Core	*Periphery*
1. $i= i\ a(\pi\ EMU -2) + b\ OGEMU$	
2. $p = \varphi(w /\delta y^*/\delta L^*) + (1-\varphi)(p/p^*)$	$p^* = \varphi (w/\delta y^*/\delta L^*) + (1-\varphi) (p^*/p)$
3. $w = e0- e1u + e2p$	$w^* = e0 - e1u^*+ e2\pi^*$
4. $u = [FL-L] /L$	$u^*= [FL^*-L^*] /L^*$
5. $L= d0 + d1Y + d2\ w/p$	$L^* = d0 + d1Y^* + d2\ w^*/p^*$
6. $YL= L\ w$	$YL^*= L^*w^*$
7. $YD= YL - IT +TR$	$YD^* = YL^*-IT^*+TR^*$
8. $C= \alpha1+\alpha2YD$	$C^*= \alpha1+\alpha2\ YD^*$
9. $I= \beta1(p-p^*) + \beta2\ (i-p/p-1)$	$I=\beta1(p^*-p) + \beta2(i- p^*/p^*-1)$
10. $A= C+I+G$	$A^*=C^*+I^*+G^*$
11. $CA= - \mu\ (A-A^*) - \delta(p/p^*)$	$CA^*= - \mu(A^*-A) -\delta\ (p^*/p)$
12. $Y= A+CA$	$Y^* =A^*+CA^*$
13. $II\ DD= \gamma1Y[+\gamma2(F-F°)]$	$IIDD^*= \gamma1\ Y^*[+\gamma2(F^*- F°)]$
14. $TR = \delta1Y\ [- \delta2(F-F°)]$	$TR^* =\delta1Y^*\ [-\delta2(F^*- F°)]$
15. $F=IIDD + AE - TR - G$	$F^* = IIDD^* +AE^* - TR^* - G^*$
16. $[F° = F - \theta\ OG]$	$[F° = F^* -\theta\ OG^*]$

where i= ECB's official interest rate; OG= output gap: $[Y^p- Y]/Y$ π= inflation; $\delta Y/\delta L$=

5 Indeed we think that micro-foundations of New Keynesian models give rise to many doubts that make them less suitable than the traditional Old Keynesian models, macro-founded (Chiarella et al. [2005]), especially when what matters is the empirical evidence (Mayer T. [1995]).

6 To understand better the meaning of Taylor rule in the EMU case in normal times and under the 2015 ECB QE, see Verde [2015]

labour marginal productivity; p= prices; p/p*= real exchange rate; u= unemployment rate; FL= labour force; L=employed; Y= income, YL= labour income; w= wages; Yd= disposable income; IIDD= direct taxes; TR=public transfer (pensions) C= private consumption; I= private investment; A= domestic absorbtion; CA= current account; F= actual public deficit; F°= public deficit consistent with the EU fiscal rules. θ= deficit /output elasticity G= public spending excluding TR= public transfers; AE= other revenues.

Note: All variables are at constant prices, except those concerning public finances (eqq. 13-16) . Deflators, when they need, are put equal to1, so nominal and real variables coincide. The coefficients of the equations are supposed equal. This choice does not affect the conclusion drawn from the exercise. The EMU's institutional aspects are caught by equations 1(single ECB monetary policy)and16 (fiscal policy Stability Growth Pact constraints). Fiscal rules also involve eqq.13 and 14 when corrective fiscal measures are envisaged. Equations of fiscal sector are completed with parts included in the square brackets to consider changes imposed by austerity. Potential output is exogenous, not-affectable by policy changes[7].

3.1.2 Fiscal adjustment mechanism

The above model has actually been simulated. Results are expounded elsewhere[8]. In this paper we limit ourselves to a couple of essential remarks.

The starting point of fiscal adjustment is in eqq. 15 and 16 where F* is the actual deficit and F° the target one, with F*> F. We assume periphery point of view. Periphery or GIIPS area is supposed to breach the fiscal rule of 3 per cent. Dimension of deficit contraction is F*- F°, where F* is the actual level of nominal deficit and F° the level of nominal deficit equal to 3 per cent of nominal GDP. The corrective action is based on tax increases and transfer reduction as well. In particular GIIPS representative member state (or our country) will plan an increase of income taxes and a reduction of unemployment subsides. That is fiscal contraction will mainly aim at cutting disposable income and, then, private consumption, besides public outlays. Imports will decrease and considered as given exports, CA i.e. external imbalance will improve. But output and employment will go down, giving rise to an increase of unemployment.

3.1.3 External imbalances and austerity: a graphical analysis

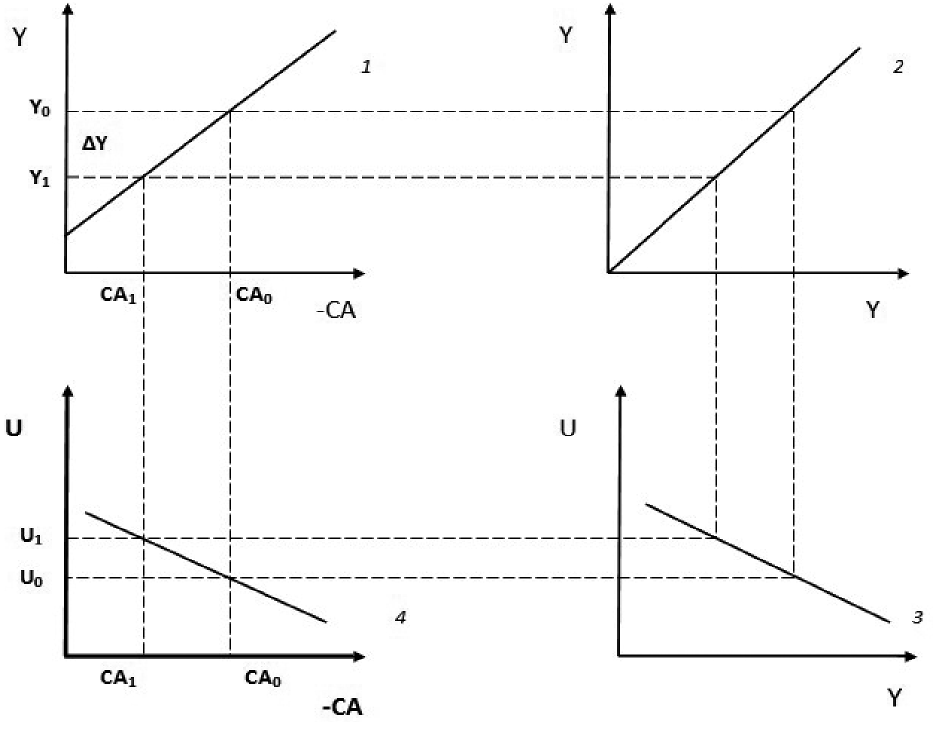
Fig.6 shows this scenario. It has four panels. As the previous fig. 3, the scheme is based on the [u, CA] relationship. On the X-axis in panels 1-4 there is the CA *deficit, left-direction steps mean CA improvement.* We start from panel 1, with the relationship between Y and CA, according to which, given the exports, a reduction of CA deficit is possible only thanks to an equivalent cut of imports and then of income Y. This reduction of Y is the first austerity impact. In our deficit country, income decrease from

7 Incidentally we notice that the estimation of potential output has become a huge problem in EMU because it is crucial in evaluating if fiscal constraints have been met by Member States.

8 Cfr Verde [2015b]

Y_0 to Y_1 and CA deficit goes down from CA_0 to CA_1.
In panel 3 we have the usual relationship between u= 1-N/FL and output Y is reported. From panel 3 we obtain the curve showing the relationship between unemployment and CA we are looking for. In the scenario, CA deficit can be reduced only at the expense of higher unemployment[9].

Figure 7 External imbalances and austerity



3.2 Austerity and internal devaluation: a hint

In the previous exercise, wages and prices changes are ruled out, as in the old pure Keynesian model. However we can imagine wages and prices, deemed as sticky or downward rigid, reduced thanks to an adequate dose of fiscal austerity. In this case we talk about *internal devaluation* from austerity. With few changes, our model could be use to simulate the link between internal devaluation and external imbalances. The relationship between internal devaluation and the austerity policies allow us to complete the analysis of the policy tools able to adjust CA imbalances. The internal devaluation might be important because of the loss of nominal exchange rate. It refers to alternative policies able to mimic the effects of an external devaluation. These policies are: a) a revenue-neutral shift from taxes on labour to taxes on consumption; b) a public-sector wage reduction or moderation. The first aims at reducing tax burden on export, the second to exert a pressure on wages in private sector. That is, internal devaluation policies aim at

9 And poverty and inequality according to some recent empirical analysis (Furceri D. [2012])

reducing domestic prices – by affecting relative export-import prices and/or by reducing production costs – in such a way to obtain a real exchange depreciation. Both measures should allow to improve competitiveness. Finally, internal devaluation acts through the *supply* side channel- costs and tradable prices; while fiscal austerity acts through the *demand* side of the economy, increasing taxes and reducing public spending, with negative effects of internal demand. And, then, on income and employment. In other words: austerity will weaken or cancel the internal devaluation supply-side effects.

3.3 Self- defeating austerity, surpluses countries role and external and fiscal imbalances

Our model will also tell us if fiscal contraction will be able to fill the gap [F*-F°] for our GIIPS country. If our policy's forecast is negative, we should considerer other or more drastic measures of fiscal policy, until our objective is achieved.
This is not the end of the story, because austerity could be *self-defeating* in the sense that after the corrective fiscal action and because of it, the debt/GDP or deficit/GDP ratio could even raise! It is not an impossible result[10].

Another interesting aspect to us -we will say why in the next section- it is to note that the final results of the austerity policies carried out by the GIIPS on fiscal and external imbalances will crucially depend on the "core" area or surpluses countries behaviour, in *primis* Germany.

An important and intuitive result of our model is: if surplus countries decide to spend their higher "potential" internal demand, where "potential" stands for the level of absorption (C+I) consistent with an acceptable level (i.e. reduction) of CA surplus, the GIIPS' adjustment of external imbalances would be easier: the loss of output and employment in the deficit countries will be lower. Thanks to the impact of the "core" absorption on the GIIPS CA (eq 11) and then on output, employment, disposable income, consumption, income taxes, public deficit, fiscal imbalances.

When a periphery country incurs in a fiscal imbalance – e.g because its deficit is higher than 3 per cent of GDP- it has two " external" chances making its cure less harmful: a) to count on expansionary policies by the "core" countries; b) to count on specific actions by the "Union".

The EMU experience gives evidence of neither of these options. The strong economies gave up to stimulate their internal demands to spur the exports of the countries in fiscal troubles. Are they responsible for that? In general it is difficult to ascribe them of this responsibility, but in a monetary union things change because the union's stability is to be considered a *public good.* This is still more important considering that the Union is not in condition to help these countries because the Treaties don't envisage any insurance mechanisms, or a fiscal union, even if in 2011 a procedure against macroeconomic imbalances was adopted by the Union.

10 We are talking about self-defeating austerity in the sense that the deficit cutting lowers GDP and the austerity outcome could be the increase of deficit or debt/ GDP ratio. This result depends on the multiplier values and the type of model used. A similar result seems likely in the sort run if the multiplier is 1.5; it is unlikely if the model is New Keynesian (Gross [2011])

4. External imbalances in EMU: Target2 imbalances

This third episode of external imbalances is more complex. Somebody even deems that in this case we have nothing to do with external imbalances. At least for three reasons. First. Imbalances exist but refer to the financial positions of member states' central banks within a intra euro-zone payments system or TARGET2. Second. In this case it is the capital account, KA, more than the CA to play main role.

Yet we believe that talking of "external imbalances" in this period of sovereign crisis is correct. Because: the financial positions' imbalances within the TARGET system always reflect the external –CA or BoP- imbalances among the euro-area, current or cumulated in the past; capital account assumes a crucial importance because sudden stops or capital reversals from the GIIPS, but they are strictly tied to external imbalances previously funded by capital inflows. It is true, instead, that in this third case of external imbalances the underlying theoretical scheme is quite different from those linked to competitiveness and absorption relative to the income. To some extent, it lacks own autonomy relative the first two approaches which explain the underlying imbalances.

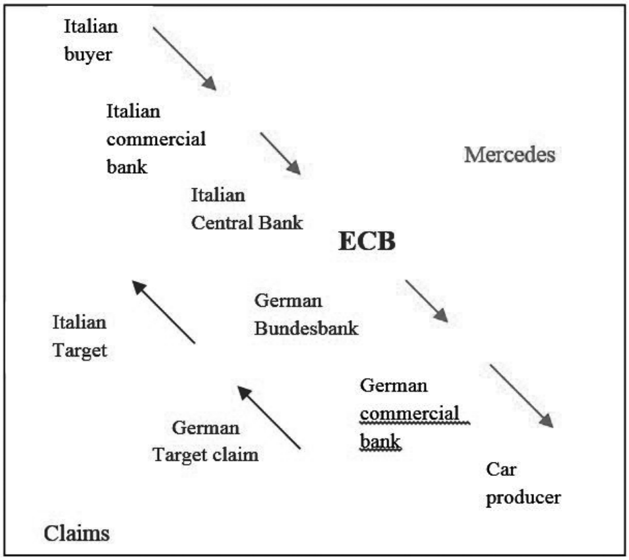
The TARGET system. TARGET stands for *Trans–European Automated Real-time Gross Settlement Express Transfer*. It changed the acronym in TARGET2 in 2007 when it was reformed. It is an intra- Eurozone payment system working among the NCB of the Eurosystem. The ECB acts as the clearing house of the system and as such the NCB's credit and debits are referred to it. Le's see to summarize the TARTGET2 *modus operandi* before asking why it became important. Let's start from the way which a intra euro area trade transaction was funding in before TARGET2 intervened.

Rossi, an Italian citizen orders his bank to pay 50,000 euros to Mayer a German citizen for the purchase of a car. Transaction is smoothly concluded thanks to deposit moves. The German bank debit the Italian bank for 50,000 euros lent ie. Mayer will see its deposit increases by 50,000 euros, while Rossi's deposit will debit for the same sum. Now let's see the TARGET2 working.

Trade transaction is transaction is the same. In this case its settlement is realized with the intervention of NCB- Bank of Italy and Bundesbank- as well as of the ECB – as clearing house of the system. In this case the Italian commercial bank ask Bank of Italy (BoI) to provide it with 50,000. BoI prints[11] monetary base to be transferred to the Ialian Bank. This bank has money to be transferred to purchase the car in Germany. The BoI 's counterpart is the ECB which *debit* the BoI TARGET account for 50,000. At the same time the ECB *credit* the Bundesbank's TARGET account for 50,000; the Bundesbank transfers 50,000 to the German commercial bank which in turn credit Mayer's deposit. At the end: the BoI has a debit TARGET position at the ECB; the Bundesbank has a credit TARGET position at the ECB. If that transition is the sole realized in the BoP, the debit BoI position has funded the Italian CA deficit. Monetary base in Italy has increased by 50,000 euros: the TARGET system has worked to inject money in the deficit country.

11 In this case, the term "prints" stands for "money creation" through a mere accounting issue. (cfr

Figure 8 –TARGET's modus operandi Source:Sinn and Wollmershhauser [2011]



At this point, it could be useful to make explicit the link between the BoP accounting system and the TARGET system. We can write two elementary definitions: that $\Delta OR = CA + KA$ and :

$KA = (\Delta DI^f - \Delta DI^n) + (\Delta PI^f - \Delta PI^n) + (\Delta LO^f - \Delta LO^n) + (\Delta OK^f - \Delta OK^n) + T2 + SMP + PGM$

OR= official reserves; CA= current account balance; KA= financial account balance; DI = direct investment PI= portfolio investment; LO=loans, OK =other capitals. apex f stands for *foreign,* n for *national* . For instance: DI^f means direct investments realized in our country by foreign residents; DI^n means direct investments realized by residents outside their countries. Foreign capital are *liabilities* for our country, national capital are country's *assets.* Liabilities are recorded as credit (=inflows) and Assets as debit (=outflows) T2 = CB net position with ECB; SMP= the Securities Markets Program (SMP) for ECB purchases of government securities from residents; PMG = financing through official IMF and European assistance (PMG). That is the TARGET position is an item of the country's BOP: under the BoP accounting system, the TARGET liabilities changes are nothing but registrations (*credit*) of the KA.

But the questions now are: why the TARGET positions changes? Which are the determinants of TARGET flows?[12] In our example, above, the Italian bank substituted the foreign loan from German bank, usual before the markets' crisis, with credit from the BoI. That's the purchase abroad was funded with reserves from the ECB. In this case, the double-entry registrations in the BoP are as follows:

	Credit	Debit
CA (goods)	50,000	
KA (T2)		50,000

12 To this point see Cecioni and Ferrero [2012].

This example shows that T2 works as the item "ΔOR" in the pre euro- situation. Then, the Italian buyer paid with CB's OR, now with TARGET liabilities.

A similar example could made thinking of a cross border purchase or sale of bonds. Also in this case the counterpart of the purchase is not an official reserves loss, nor in case of sale an official reserves increase. Summing up: the determinants of TARGET2 negative positions or liabilities are : a) CA deficits; b) private capital reversals; c) deposit run by resident households and firms unrelated to the demand for goods. (Cecioni and Ferrero [2011], p. 20)

Therefore both trade and current account deficits and capital outflows could be behind the TARGET positions' imbalances. The problem, then, becomes empirical, rather than theoretical. Indeed some empirical analysis on this aspect exist. In primis, Cecioni and Ferrero [2012] and Buiter et al.[2011]. In general they bring us to the conclusion that TARGET2 net balances of NCBs cannot be automatically linked to current account deficits in those countries (Buiter et al. 2011, p.13) On the contrary "with the exclusion of Greece, the analysis suggests that during the crisis the current account and trade balance deficits *per se* are neither a necessary nor a sufficient condition for observing large TARGET2 liabilities" (Cecioni and Ferrero cit, p. 20)

According to this paper, TARGET2 imbalances should reflect – inevitably- external imbalances, current or cumulated in the past. Imbalances concerning competitiveness and more probable - because of the low correlation with CA deficits- imbalances in other parts of the

Thus TARGET works *as it were* official reserves but their positions not coincide with them nor with the net foreign investment position (NFA). We are able now to answer to the question *why* and when TARGET2 has become very important.

In the years going from 2007-10 [13]the GIIPS countries were recording growing CA deficits, as it is evident from fig 4. Nevertheless, the GIIPS could take profit from the drastic reduction of interest rate as well as from the adequate supply of foreign funding resources (Jaumotte et al.[2010], Fagan and Gaspar [2008]). Thus the CA deficits were funded by the international financial markets without problems. The financing sources of the GIIPS external imbalances were, at least up to 2009, utterly private. But by 2010, financial markets changed mind and modified their attitudes towards GIPPS imbalances. They were not more willing to fund them. Why? For a couple of reasons.

First. Because, on the occasion of the first Greek loans granted by the so called Troika (IMF, ECB, EU Commission), in 2010, relevant *haircuts* to the past debt were applied in the attempt to reduce the Greek financial burden. These haircuts produced a widespread loss of confidence by private investors in the GIIPS' ability to utterly re-pay their debts. Thus they feared to further lend money to Greece and other weaker EMU countries as well. Haircuts should have been claimed by all vulnerable EMU countries.

According to Geithner [2014, p.450] "making haircuts a necessary condition of all rescues would be like announcing that no loans to the weaker European banks or

13 Why 2997-10? In 2007 TARGET positions were close to equilibrium. 2010 is the years in which the TARGET becomes important in particular for the GIIPS and for the reasons expounded in the paper.

governments were safe".

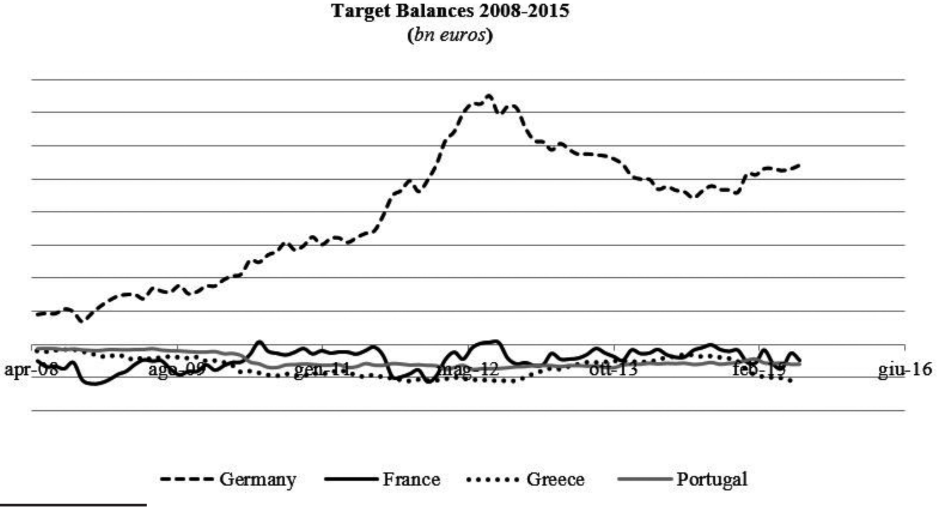
Thus private international financial markets became more cautious in lending to these countries and gradually capital inflows interrupted, first, and went back towards places where they came from. This was another proof of the *herd behavior* which characterizes speculative capital movements. Fears shattered financial markets putting a rough stop to the private capital inflows. These fears produced sudden stops or capital reversals[14]: the EMU slipped into a severe sovereign crisis (2012-13).

According to M. Wolf "once a country inside a currency union becomes dependent on large net capital inflows, a sudden turnaround in these flows will cause an economic crisis. Such a crisis will be marked by a financial shock" (M.Wolf [2014],p.60)

Then the interbank market in Europe dried up. Thus, as if before CA deficits were financed by financial markets, now a "federal" mechanism had to intervene to substitute private markets. This mechanism was the TARGET system. Thus while the private financial markets interrupted their financing and called back capital previously invested in the GIIPS, the monetary base created by GIIPS CB was able to substitute private credit. That's why the TARGET system became very important. It revealed itself a true safety net which each monetary must be provided for.[15]

However some time later, new worries stirred up not only financial markets, but economists and academician too. Indeed the level of cumulated TARGET2 positions or debts reached in 2012 their highs. Germany's active TARGET position was higher than 700 billion Euros. The GIIPS countries on average had, as a whole a negative TARGET position. However starting from 2013 the TARGET balances, between Germany and GIIPS have gone gradually shrinking. (fig. 9)

Figure 9 Net financial positions within the TARGET2 system



14 We define sudden stop as a succession of capital reversals.

15 "To be precise, the national central banks (of GIIPS) created money electronically by providing credit to their commercial banks and this money then replaced the money that seeped away electronically via the international TARGET transactions accounts" (Sinn H.W. [2011], p.4)

The policy implications imbalances within TARGET2 system.

It is important to dwell on the imbalances between claims and liabilities of NCB within the TARGET2 system. We can do it taking cue from an astonishing though well advertised thesis expounded in many occasion by the Director of the Center for Economic Studies at the Munich University, Hans-Werner Sinn [2011]. According to Sinn, the intra-euro-zone NBC payment system or TARGET2 was nothing but a Germany's stealth bailout of the GIIPS economies. Moreover, it was a sort of a ticking time bomb, hidden in about 700 billion claims (fig. 6) of the Bundesbank within the TARGET2 systems.
The basis and the conclusions of Sinn's reasoning were the following :

a. Target2 system works as Bretton Wood did. NBC of peripheral countries print money which goes into creditor core countries, in primis Germany. Here it crowds out monetary base created by the Bundesbank to fund home economy. This liquidity ends for going back toward GIIPS area to fund their BoP imbalances. Thus creditor fund debtor imbalance. This situation is similar to that linked to the famous remark of 1961 by De Gaulle about the US's "exorbitant privilège". Also in that Bretton Woods case, debtor's (US's) BoP imbalances were funded by surplus countries (Europe). Now with the TARGET2 the same mechanism between Germany (creditor)and GIIPS (debtor) is working. And- according to Sinn- also TARGET2 is doomed to fall. Why? Because foreign debt of periphery countries has reached unsustainable levels.
b. TARGET2 is a form of publicly finance the balance of payments of the periphery countries, doomed to bankruptcy.
c. Sinn's conclusion is clear cut. He proposes to limit the build –up of GIIPS TARGET2 liabilities by establishing the financial positions within the system should be settled once a year by transferring gold or marketable assets from the debtors to the creditor NCB. Or else, more simply, to copy the annual settlement of similar imbalances as the FED systems does. Finally and more important, Germany's Bundesbank should be put in a condition of refusing to further provide with unlimited credit vulnerable countries, because of the risks of huge losses in case of the break- up of the EMU. [16]

Sinn's opinions further scared financial markets, but have appeared substantially wrong.[17]. Let's try to set out our objections. In an *incomplete* monetary union, such as the EMU, a *safety net* is a pre-requisite to its launch: without a similar safety net a monetary union could not be conceivable.

As Buiter et al.[2011] pointed out , the TARGET2 net balances of NCBs should not be interpreted risky for creditor countries. On the other hand, it is long time, since 2013, that the financial positions within the TARGET2 have shrunk themselves. All that, after that the intra euro-zone payments has carried out its role as safety-net of the system.
Last but not least, TARGET positions were mere accounting items: they don't give

16 Indeed a similar thing happened in 1992 when Germany refused to provide the Bank of Italy with the needed amount of DM even if the 1987 Nyborg Agreement

17 Even if according to Buiter et al.[2011] under certain conditions, the increase in TARGET2 net debt of particular countries cannot be suggestive of serious problems.

obligation to pay or right to receive money. Sinn's suggested – periodic- payments of the financial liabilities would mean the end of the European integration process. And indeed a similar refund-clause could be claimed only in case of the break-up of EMU. Were Sinn's proposals suggesting the end of EMU or a two-speed union?[18]

Nevertheless, according to Buiter et al. [2011] TARGET2 imbalances may a symptom of the difficulty of banking systems of GIIPS have in funding themselves in the markets without public support. Then the cure is to put the banking systems in EMU on a sound footing. But this is an obvious opinion which has nothing to with Sinn's.

5. Some concluding remarks

This paper has stressed the *crucial role that policies and institutional aspects assume in defining causes, consequences and cure of external imbalances. In particular when we talk about monetary union. This aspect has been utterly overlooked.* This paper aims at filling this lack. The paper highlights three kinds and three episodes of external imbalances in the starting- from –the- euro- inception- years: 2000-2014 In all three episodes of external imbalances in EMU allow us to assess the policy responses.

Conclusions are as follows.

Schroder- Hartz's structural reforms in Germany could explain the CA surplus of the country in the years from 2000 to 2007, at least to some extent. Indeed, in general, it is reasonable to deem that structural reforms need a significant increase of domestic demand, i.e. more investment of high quality and adequate level of private consumption, to be effective; on the other hand, in the current cyclical phases, it is growth to lead productivity and not vice-versa;

the European Commission's austerity policies imposed from 2008 to 2010 brought GIIPS to internal devaluations, i.e. to the mediate causes of output losses and marked worsening of economic scenarios (*in primis*: higher unemployment) : this has been the cost of the deficit/GDP ratio and CA improvements;

c) The most dramatic period of the EMU sovereign crisis (2011-13) was packed by the intra-eurozone payment system or TARGET2. It was harshly criticized by some German economists. They were wrong and TARGET2 has shown itself as an effective safety -net against the crisis which helped GIIPS to draw themselves from the ravine. On the other hand, it is long time, since 2013, that the financial positions within the TARGET2 have shrunk themselves. All that, after that the intra euro-zone payments has carried out its role as safety-net of the system.

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PAPER

Demographics and Insurance Market Development in Nigeria

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Abstract Insurance market development is often measured in terms of penetration which may depend on the prevailing demographics like life expectancy, fertility rate, income distribution and dependency ratios. Many of these demographics emerge as cohorts to savings and insurance behaviors. The matured economies are configuring development in terms of longevity risks as compared with developing economies that faces higher dependency ratios, lower life expectancy and high fertility rates and active young population but with high unemployment, morbidity rate, mortality rate poor Gini co-efficient. This paper adds to the literature on the implications of emerging demographics on Nigeria's insurance market development debacle. Using multiple regression technique, the level of causal relationship of insurance market development is tested on mortality rate, fertility rate, dependency ratio, unemployment rate, and Gini co-efficient. It is found out that insurance market development in both life and general insurance sectors is significantly negative to the explanatory variables. The study suggests that policy on health and education expenditure should be increased to mitigate high morbidity and mortality risks as well as generating employment opportunities in other to sustain savings and insurance culture.

Keywords Demographics - Insurance market development - Socio-economic policy

JEF Classification J11 - G22 - H300

1. Introduction

Potentially, Nigeria has the biggest insurance market in Africa, due to her population and Natural resources. Yet she has about worst insurance penetration. The Africa Business Special Report (2007) identifies that insurance services have historically not been popular with the Nigerian public. The report reveals that less than 1% of the country's population of 140 million people has any form of insurance policy. Those

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that have cover obtain only compulsory insurance. Insurance market development in Nigeria in recent years is premised on using several planks like compulsory insurance. According to Laguda (2010), the intensification of the awareness campaign by the National Insurance Commission for the compulsory insurances and the release of the 'Guidelines for the Insurance of Oil and Gas Business' to have a minimum percent local content were expected to boost aggregate premium growth rate

Prior to 2005, there was a significant fall in gross premium income of all insurance companies in Nigeria. From 1999 to 2000 premium fell from N14.79 billion to N1.58 billion (NIA, 2004). This rapidly skyrocketed to N233.75 billion and N200.38 billion respectively for the year 2011 and 2010 (Pan African Capital Research, 2014). According to the Swiss the Global Report for 2004, the Nigerian insurance industry had only 0.02% of the global market. The report also ranked Nigeria 62 out of 88 countries in terms of annual premium volumes; 69th in life funds and a dismal 86th on insurance density. Insurance reforms in 2005 pushed for recapitalization and consolidation which have boosted risk-taking capacity and premium growth rate (Chukwulozie ,2008).

Notwithstanding these efforts insurance penetration in Nigeria is one of the worst in Africa at 0.5% for life insurance and 1.5% for non-life insurance (Ojumah, 2013) which is 0.7% on the average compared to South Africa 16% and global average 7.5% (First Bank Capital, 2013). By the estimates stated by First Bank Capital (2013), 86% of Nigerians do not have any insurance cover. Others have attributed other reasons as awareness (Chikwelezi, 2008), low income (Ojumah, 2013) or income inequality (indicated by Gini-coefficient), or financial literacy (Onuoha, 2013) citing National Insurance Commission (NAICOM) Chief Executive's remarks at a conference. Most the practitioners and researchers in this area are focusing socio-economic parameters and not demographics. The impact of demographics on purchase of insurance was examined in India, and Negi and Singh (2012) find demographic factors influence the important factors that motivate purchase of life insurance. Demographic risks often appear as cohorts to economic behavior of the society of which insurance is a key to active risk management. Eaterlin argues that "high population growth and improved productivity both arise from the same source-the reduction in mortality and associated improvement in health and also if mortality reduction were accompanied by a fertility reduction, so that population growth did not accelerate, then the productivity increase would be higher, for the positive effects of better "quality" workers would not be partially offset by the tendency toward diminishing returns produced by a greater quantity of workers." This statement must have assumed moderate unemployment, dependency ratio and Gini-coefficient. Oxford Economics (2012) projects similarly that in the absence of mass immigration and catastrophic fatalities, UK will experience decline in dependency ratio-working population of 18-65 decreasing compared to dependants 0-18 and above 65. This is forecasted from longevity and reduced fertility/birth rates. On the other hand, Nigeria and other developing countries are contending with unemployment, high mortality rates, low life expectancy, non-directional population policy, and high fertility rate. Anecdotal perception conjure that high unemployment rate and high Gini co-efficient will significantly mediate late marriages and low birth rates which induces low saving's behavior and indeed insurance culture. Demographic profiles are used by marketers to develop marketing strategy and plans (Negi and Singh, 2012), and in particular can be used to predict demand of life insurance. On this basis, the study hypothetical predict negative correlations between insurance market development in Nigeria and emerging demographics. This study extends knowledge on why insurance is not attractive in low income countries theoretically. The future of Nigerian insurance market can be assessed and policy implications crafted to address demographic risks.

2. Review of Literature

Research works on demographics and insurance development are very scarce and the few available considered the impact of demographics on socio-economic factors affecting life insurance demand Curak, Dzaja and Pepur, (2013) in Croatia and by Negi and Singh, (2012 in India. Population dynamics are slow and it takes decades for the age structures to change significantly (Lassila and Valkonen, 2008). They assert that demographic changes are clearly easier to foresee than most economic changes. Demographic shift is also popularly referred to as population ageing (Bloom and McKinnon, 2013). The implications of emerging or shifts in demographics on insurance market development is yet to be the focus of researchers in Nigeria, apart from socio-economic factors affecting purchase of insurance. Nigeria has the largest population in Africa being projected to about 170 million people, 6th largest producer of oil in the world, and rich in Natural resources. The Gross Domestic Product (GDP) which from grew 34 trillion Naira to 42.4 trillion Naira, 2010-2013 was recently rebased 54.2 trillion-80.2 trillion for the same period Nigeria Bureau of Statistics (NBS), (2014) . Yet she has about the worst insurance penetration in Africa. The Africa Business Special Report (2007) stated that insurance services have historically not been popular with the Nigerian public. Going by First Bank Capital (2013), 86% of Nigerians do not have any insurance cover. Why do people purchase insurance? And how does insurance market develop?

The underpinning theories are found in actuarial and portfolio theories that were used in developing utility function for insurance. Insurance is used as protection instrument against life cycle events such as premature death, sickness, old age, retirement, accidents (fire, motor) and natural disasters (Casualty Actuarial Society, 2001). Actuarial theory uses the law of large numbers to predict that the sample mean converge in probability to population mean Seog (2008). Portfolio theory says that in an efficient portfolio the sum of the risk is less than the total risk. Hence, in pooling of risk the interest is in the average risk.

The variance of a sample sum $\sum_{i}^{n} X$ is denoted by $n\delta^2$ which goes to infinity as n tends to infinity. The implication is that as the pool of risk increases to infinity the value of each risk approaches zero. By actuarial theory, the pricing of each risk based on its value, the smaller it becomes the more insurable. Seog (2008) argues this implicit function of insurance market. Suppose that an insurer sells insurance to *n* individuals with independent and identical risks. From portfolio theory, the aggregate risk increases but smaller than the sum of the *n* risks. The basis of insurance management is that the actual loss may exceed expected loss, and hence reserves are created as buffers (Casualty Actuarial Society, 2001). The law of large numbers posits that the reserve falls to zero as the coverage tends to infinity. The logic of attractiveness of insurance business is linked to a demographic cohort that can produce large numbers of risk averters. Risk-insurance hypothesis also suggest that high fertility and birth rates is traced to the propensity of use children as insurance (Robinson, 1986).

Various demographics are reported in literature to affect demand for life insurance. Young couples are known to have greater demand for life insurance through their wives (Anderson and Nevin, 1975). Burnett and Palmer (1984) and Truett and Truett (1990) found that purchase of life insurance is related to the level of education, income and large families. An indirect inference is that high youth dependency ratio or age dependency ratio from large families should result in higher demand for insurance or insurance market development. Fertility and birth rates are well known correlates. The extant literature on fertility links improved education to lower fertility and birth rates and this is expected to improve insurance market (Li *et al*, 2003) more so that children can no longer be used as insurance (Robinson, 1986). The emergence of two-child family discussed by Russel (1948) is almost a reality in Nigeria. Similarly, Risk aversion is important reason why people decide to buy insurance in general despite the fact that they have to pay for insurance premium more than mathematical expectation of loss. Outreville (1996) argues that risk aversion has positive effect on life insurance purchase as well and used education as proxy for risk aversion.

Mortality and Life Expectancy patterns in Nigeria

Mortality patterns in Nigeria have not been linear over the years but have improving slowly in recent years. Rogers *et al* (1996) report social characteristics in the mortality pattern of Black Americans and observe that they lag behind other ethnic nations because of their disadvantaged social index. They categorize them as not likely to be married, employed or wealthy which are associated with lower mortality (Schoenborn, 1986 and Potter, 1991). The worsening of these social variables will likely aggravate the demographic variables in a simple logic. Life expectancy from birth also fluctuates between 51.6 and 52 from 2000-2012 (World CIA, 2013). This implies there is a youth bulge in Nigeria. While annuities can manage longevity risk, it could boost the life insurance market while low life expectancy will make life insurance costly.

Dependency ratio and insurance Market Development

Dependency ratio depends on the employment rate. Since age and youth dependency assume that those in the working age bracket (18-65 years) will be employed and therefore buy some insurance to protect their dependants. Hammond *et al* (1967) and Mantis and Farmer (1968) find influence of employment on life insurance consumption since employment provides income. The demographic shift in Nigeria is suggested to be occurring due to age at first employment. Many graduates do not have employment 5-10 years after leaving school which may also affect age at first marriage. This generation should seek more insurance.

Income inequality and Insurance Market

The focus on mortality and fertility decline by developed economies as vectors of economic development was questioned by (Davis, 1963), but remains topical issues as to the demographic risks that must be managed for optimal saving structure and productivity. The identified difficulties make it more difficult to recommend a single generalization for demographic risks on economic development. It is presumed that economic development is vectored by insurance development as reported in extant literature (Beck and Webb, 2003). The structure of the family affects the way income is generated and distributed (Ben-Porath, 1982). It is therefore assumed that family and demographic process are in principle affected by income distribution. Since insurance is risk-pooling and risk-sharing devices, Ben-Porath (1982) argues that the redistribution of intra-family networks will prevail in undeveloped insurance markets. Thus, high income-inequality generated by demographics will adversely affect the need to buy insurance.

3. Theoretical framework, Data and Methodology

The time series model is implicitly specified in line with utility function predicated on actuarial theory (Casualty Actuarial Society, 2001). One of the few recent studies Negi and Singh (2012) used factor analysis. Functionally, the relationship that insurance market development is a function of gross domestic product, average life expectancy, gini coefficient, dependency ratio is stated as follows:

$$Linsdv = f(\underset{-}{drtio}, \underset{+}{lxpcy}, \underset{-}{gini}, \underset{+}{lg\ dp}) \qquad (1$$

The *a-priori* signs are presented underneath. Explicitly, the elasticity model is appropriately stated in double- log form as follows:

$$Linsd_t = \gamma_0 + \gamma_1 drtio_t + \gamma_2 lxpcy_t + \gamma_3 gini_t + \gamma_4 lg\ dp_t + \varepsilon_i \qquad (2)$$

The logical expectations are $drtio, gini < 0$; $lxpcy, \lg dp > 0$

Where the stochastic error certifies the standard conditions as follows:

$$E(\varepsilon_i) = 0,\ Var(\varepsilon_i) = \delta^2 \qquad (3)$$

The 32 years (1981-2012) data were sourced from the following institutions: the Central Bank of Nigeria (CBN) statistical bulletin for the insurance gross premium, which is a proxy for insurance market development; National Bureau of Statistics (NBS) for the gross domestic product (GDP) at current prices; the United Nations Population Division's World Population agency is source for dependency ratio (Drtio) while life expectancy age (Lxpcy) and gini coefficient (Gini) are derived from World Bank Atlax/ Statistics. Eview 7 software package was used.

Augmented Dickey-Fuller unit root technique was applied to test the stationarity properties of the variables. This was achieved at first difference for all but Gini coefficient (see table 2). It suggests that while majority of the variables are intergrated at I(1), the non intergration of gini coefficient variable at I(1) denies the model of cointegration study.

The variables were also tested for directions of causality. The granger causality test (see table 3) reveals that bi-directional causality exists between Drtio and Linsdv; and between Lxpcy and Drtio. Unidirectional causality runs from Lgdp to Linsdv; from Lgdp to Drtio, and from Lxpcy to Gini. The rest variables were found to be independent (Gujarati and Porter, 2009: 653-4).

Regression Results

Table 1 Summary of Results

$$Linsdv_t = 19.332 - 0.054 drtio_t + 0.1 lxpcy_t - 0.05 gini_t + 0.04 lg\, dp_t \qquad (4$$

Std error =	(2.6283)	(0.0238)	(0.0199)	(0.0032)	(0.0329)
T.stat. =	7.3555	-2.2626	5.3903	-1.4828	1.2427
Sig =	0.0000	0.0319	0.0000	0.1497	0.2247

R^2= 0.913, adj. R^2= 0.900, F-Stat.= 70.837 Sig.= 0.00000, D.W Stat.=1.11, Obser.=32

The regression's diagnostic statistic result (see table 1) suggests that the coefficient of determination (R^2) is appropriately high at 91%, the F- statistics is significant at less than one percent. This indicates that the explanatory variables effectively relates or determine the value of insurance market development in Nigeria, though with elements of serial autocorrelation in the model. The result of the regression reveals that the variables tested generally agree with the *a-priori*. The dependency ratio and gini coefficient are negatively related to insurance market development in Nigeria. This suggests that a one percent rise in the Nigeria's dependency ratio reduces insurance market by 5.4% *ceteris paribus*. Similarly, a one percent rise in the gini -coefficient reduces the insurance market development marginally by 0.47% *ceteris paribus.* The life expectancy and the gross domestic product are positively related with insurance market development. The result suggests that a one percent rise in gross domestic product increases insurance market development by 4.1% *ceteris paribus*, and similarly, a percent rise in life expectancy increases the insurance market by 11percent.

Implications and Discussion

Nigerian Insurance market growth may have been stunted due to the negative relationship with income inequality as measured by gini-coefficient. Gini-coefficient in Nigeria is one of the worst in the world (Bakare, 2012 and CIA World Fact book, 2012). Likewise dependency ratio which reflects the family structural economic redistributions and size is negative which *a-priori* means they are disadvantaged to low income- a factor known to affect low attractiveness to use insurance. The GDP is positively related to insurance market development which has been well reported in extant literature but 4.1 % is considered low for a country with insurance penetration of 0.6-0.7%. The life expectancy positivity is a surprising outcome because of the current low life expectancy in Nigeria at 52 compared with developed nations ranging from above 65.

Life expectancy increases is positively related to education and may have contributed to the direction of this relationship.

Recommendations and Conclusion

A study of demographic shifts or risks can be used as a marketing strategy by insurers to attract unwilling purchasers of insurance. Government policy makers are to understand the import of demographic shifts on insurance market regulation and the relationship between socio-economic factors and demographics. Otherwise, the role of insurance in economic and financial development will be difficult to realize. In particular improvement in education and health care can promote positive demographic shift like life expectancy and reduce dependency ratio and birth/fertility rates. The study evinces that the Nigerian demographics have contributed significantly to the low penetration of insurance market in the economy.

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APPENDIX

Table 2 Unit root test

Variable	ADF & DF @ First Difference(Intercept and Trend)	Remark: Order of Integration
Linsdv	-7.741148*	I(1)
Drtio	-9.607235*	I(1)
Lgdp	-4.411347*	I(1)
Lxpcy	-2.533035**	I(1)

Source: authors' estimation using E-view 7.0; MacKinnon (1996) one-sided p-value
Note:*; ** indicate variables that are significant at 1 and 5 percent levels, with critical values been -4.309824 and -3.574244 respectively ADF, while for DF, the significance levels are -2.647120 and -1.952910 respectively.

Table 3 Granger causality test

Pairwise Granger Causality Tests
Date: 07/15/14 Time: 06:36
Sample: 1981 2012
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
DRTIO does not Granger Cause LINSDV	30	3.80107	0.0362
LINSDV does not Granger Cause DRTIO		3.19576	0.0581
LGDP does not Granger Cause LINSDV	30	12.3924	0.0002
LINSDV does not Granger Cause LGDP		0.39518	0.6777
LGDP does not Granger Cause DRTIO	30	22.9084	2.E-06
DRTIO does not Granger Cause LGDP		1.49846	0.2429
LXPCY does not Granger Cause DRTIO	30	14.2903	7.E-05
DRTIO does not Granger Cause LXPCY		3.34713	0.0515
GINI does not Granger Cause LXPCY	V	0.41850	0.6626
LXPCY does not Granger Cause GINI		3.72665	0.0383

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Analysis of Chinese Sport Industry under the Framework of Global Governance

Hanyu Huang

Abstract Sporting industry is no longer a brand new notion for the world. It has a history of more than 250 years. This concept dates back to the 1750s when the noblemen in Britain started a jockey club. Owing to the well social effect, the mechanism resulted from the corporate governance and the related rules and regulations it had adopted, the developing mode was soon followed by other enterprises, which is so-called the origin of the sporting industry. In a modern era when globalization and multi-polarization serve as the mainstream, the interaction between countries and the influence of sub-national actors, like non-governmental organization, multinational company, interest group have all been put on the front stage. In addition, the border between countries is starting to fade away, followed by the emergence of new issues, like drug, global crime, epidemics. The world is gradually stepping in an era called "global governance", characterized by the cooperation between individual and system, public and private institution and the sport industry also follows up this big trend in terms of huge public-private investments, geometrically expanding professionalism, advanced management culture applied activities as well as in the mega events connected. China, a new emerging power, has already focused much on sport industry considering the opening of 2008 Beijing Olympics, the successful bidding for 2022 Beijing Winter Olympics, the development of professional leagues like CBA (Chinese basketball association), CSL (Chinese Super League), and the ever increasing sport-related enterprises. However, we cannot ignore that problems still exist. So this paper aims at making an analysis of Chinese sport industry under the framework of global governance in four aspects: sports sponsorship, sport media, professional sport and major sports

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event.

Sport Sponsorship

Sport sponsorship plays an important role in balancing the sport event and enterprises, contributing to the well development of both sides. For the sport event, sponsorship provides the sport operator with abundant fund. According to the manager of Wukesong Culture and Sports Centre, the famous stadium for Olympic basketball game, about 80% of its income comes from the sponsorship (Guo Jinjiao, June 2015). For the enterprises, sport sponsorship is essential for company's marketing strategy because it is a great chance for brand and product promotion.

Under the global governance framework, public and private sector should be combined to improve the situation of sponsorship. On one hand, the public sector, like the government should draft specific regulation to ensure the right order of sponsorship. In addition, state owned enterprise, dominant in the Chinese national economy should support much for major sport event. On the other hand, the private sector, like non-public economic organizations should build a long-term partner relationship with sport organizations.

Nevertheless, when it comes to the reality, problems are quite apparent. Firstly, due to the faultiness of legal system, sponsorship is not well protected by laws. There are no specific laws to define the boundary of sport sponsorship and to preserve interests between sponsors and sport event (Zhang Daqing, June 2008). Secondly, state-owned enterprises are not acting as a stable basis for sponsorship, which is contradicting with its main role in the national economy (Xu Yonggang, Wang Yanli, April, 2004). Thirdly, Not only enterprises but also sporting organizations only pursue short-term benefits. According to a survey in Shanghai, in terms of sponsor time, 63.8 present of enterprises surveyed are less than 5 years. When it comes to the understanding of relationship between sponsor objects and aimed market, 80.9 percent of enterprises concentrate on real consumers rather than potential consumers, indicating a lacking of stability and sustainability in sponsorship (Liu Wendong, April 2004).

So measures should be taken to improve sport sponsorship. Firstly, special legislation is needed to regulate the sponsorship. Under the new law, the definition of sport sponsorship and relevant rights should be clear. Also, related responsibility and specific prohibitions should be set. In order to better carry out the new law, a support system is necessary. On one side, regulation about strengthening self-discipline of both sponsors and sport event should be introduced to direct sponsorship at a practical level. On the other side, administrative supervision is advised to preserve the charitable sponsorship

(Xiang Huiying, 2011). Secondly, a backbone team of sponsorship should be established. It would be highly appreciated if Chinese enterprises, especially state-owned enterprise, can set up specialized sponsorship institution to provide a stable budget for sport sponsorship (Xu Yonggang, Wang Yanli, April, 2004). Thirdly, enterprises should have a good market position based on their characteristics, power and strategic target. Instead of pursing blindly for short-term sensational profits, enterprises should make a detailed and specific plan to sponsor (Shi Fangfang & Chang Desheng, May 2005).

Sport Media

The sport has an irreplaceable effect in enriching public's spare time and contributing to citizen's health. However, the sport itself has a limited effect if not combining with the media. As an illustration, the number of audiences present in a football game like CSL is no more than 50,000. However through TV broadcasting, millions of people can watch it, not to mention the adding number caused by the further spread by Internet and other media. Sport, as a special social cultural phenomenon has its unique charming power compared with other cultural forms and it is capable of creating sensational effect in very few minutes, which accords with the time effectiveness of the media. So in order to earn the biggest economic growth, the best way is to tie sport and media together.

In terms of global governance, the media is gradually becoming important, according to Mu Guancheng (September, 2006), "media can be regarded as the fourth participators followed by government, civil society and enterprise in the global governance." "Information sovereignty" should be the main focus of the government." It is through media that the public can better be involved in the process of so-called governance. In the sport field, government should regulate the media, ensuring the freedom of speech while preventing them from spreading news irresponsibly and speculating blindly. Sport media should not only improve the quality of broadcasting, stimulating its biggest profit, but also bear much more social responsibility. In addition, public should not act as the passive receptor of media, instead, they should participate actively in raising their opinions though media, fostering the improvement of sport event.

In the reality, some problems really occur as for the sport media. Firstly, government controls too strictly of the media, repressing their dynamics for broadcasting. CCTV 5 monopolizes the broadcasting rights of big sport event, like the Olympics, the Asian Games and the World Cup. Although the new policy has introduced market competition in broadcasting rights, the degree of marketization is low. Several new medium like Tencent, Letv, BosTV have already won the broadcasting rights in some items, but competition between them needs to be regulated by a more fair market environment. Secondly, sport media itself is not effective. The news communication is intensified in CCTV5 and other sport channels while the other channels seldom broadcast sport news except for major big event like the Olympics. What's more, the sporting news' content are mainly focusing on popular sport, like basketball, football, some non-popular sport, like martial art or curling are marginalized, resulting in the differentiation in sport development (Deng Hao, October 2011). Also, the public is not willing to pay for sport broadcasting compared to foreign people, according to a survey by Analysys (2015). In addition, due to the lacking of knowledge in many sport events and low quality, public opinion is not effective to be a feedback for both media and sport event. Public tends to be quite aggressive in social media, creating a bad Internet environment. For example, Chinese are always disappointed for Chinese football's performance. It is common to see dirty words or personal remarks on many websites. This only reflects a bad morality of all web users and it has nothing to do with positive interaction from public. More harmful, some voice that apparently upsurge the Western sport culture while degrade the Chinese traditional sport are dominant in the Internet (Peng Gang, July 2011).

Several things are required to do to improve the sport media. Firstly, broadcasting rights should be further unleashed. Market competition can also be introduced in the mega sport event. Also, new medium should receive more policy support to release their unique dynamics. Media should concentrate much on new media to win the biggest profit in niche market. Secondly, the media should balance their reports on a wide range of sports, intending to reverse the differentiation. Besides, the media should spare no effort to improve the quality of the journalists by judging more from the operating mode of successful entities like NBA league, etc. Thirdly, the audience is encouraged to involve more in the interaction with medium. However, certain interaction should be regulated. An Internet law system should be built to purify the online environment. Also, the supervise system, like the "cybercop" should be functioned in filtering aggressive comments and in punishing web users who spread harmful information. Government, experts or other authorities should raise more mainstream comments to set a good example for the public (Peng Gang, July 2011).

Professional Sport

In 1994, Chinese football has first stepped into the road of professionalization, followed by table tennis, basketball, etc. In the process of professionalization, the athletic competitiveness has reached into a new level. China now has already established a professional system in various sports. Professional leagues like CSL (Chinese Super League), CBA (Chinese Basketball Association), CVL (China Volleyball League) have reached a certain scale.

Professionalization should be a global trend in terms of global governance. Thanks to the sport organization, sports can be much more popular throughout the world. For instance, FIFA (Fédération Internationale de Football Association) plays a vital role in the football development. Through holding different levels of football game, athletes or teams in different countries can learn from each other in fierce competitions, greatly accelerating the professionalization. Even though those sub-national actors serve as an important power in global governance, they themselves are gradually becoming problematic. In 2015, when the FIFA's scandal about huge bribery becomes evident, its impartiality and authority is harshly questioned by the public. Basically, in order to reach an ideal governance in professional sports, those organizations should act independently rather than be controlled by the government. What's more, a complete supervise system is indispensable to ensure its objectivity.

However, in China, professionalization is not as highly developed as we expect. Several problems are highly concerned. Firstly, it is the under-developed system that is to blame for. The target of professional sports aboard is to provide the market with the high level sport entertainment products. But in China, the professional sport is not mature, instead, it is "special" designed for the Olympics. In China, the system where planned market applied is called "juguo" system. In a trend of market economy in the field of professional sports, "juguo" system is experiencing growing strains. Take football for example, it is generally acknowledged that the CFA (Chinese football association) has tightly controlled the Chinese football. CFA is nominally a non-governmental organization, however it is in fact an official department, the actual administration. The CSL's agenda and management are limited by a bureaucratic department featuring the low efficiency and unreasonable policy decision. CFA's direct getting involved in operating the whole market and distributing the allocation of the fund is adverse to the essence of the professionalization. Basically, it is the administration that is the biggest beneficiary and most of the clubs are actually under deficit. Secondly, the level of both athletes and league are serious detrimental for further development. While it is true that China has the world's most advancing level in some items like table tennis, still many items are far below the world's average level. This can either be accounted by a lacking of athletes supply or indifference in many non-popular sports.

In order to improve professionalization, both management system and the professional level should be attached importance. Firstly, the number one priority is to make a balance between marketization and “juguo” system. To be specific, China must find a path with Chinese characteristics, the road of reform and innovation, to improve the overall quality and efficiency of the sports club, to promote the brand of the league, to establish the standardized and orderly regulation system and to deepen the reform of sports system. Except for that, there is still one thing that should be taken into account independently, not all sporting event can be professionalized, such as the shooting, diving, weightlifting, judo, etc. because they are lacking of a stable basis for professionalization (Yu Guowei, July 2013). To continue to maintain the leading position in the Olympics, it is not wise to put it into the market and let it develop randomly. In that case, the “juguo” system should be adopted in certain events. Secondly, Chinese government should carry out national fitness program, providing a stable basis for professionalization. Cultivating athletes is not the only task for sports schools, instead, normal schools also have the responsibility to serve as a pipeline for the growing professional circuit. Also, scientific training method should be adopted to ensure a high rate of sport talents. Lastly, professional sport needs the support from government. Government should support the family of professional athletes because of the high cost and uncertainty of cultivation (Zeng Oyuan, 2015).

Major Sport Event

Major sport event is full of business opportunities. China benefited great from that. The successfully biding and holding of the event either promote social economic environment or the country image. With the impressive growth in comprehensive national strength, China has the power and confidence to hold the highest level of sport event, like the 2008 Olympics, the 2015 World Athletics Championships, the 2022 Winter Olympics. According to the British media SPORTCAL, “China is the No1 in the number of sport events held.”

Under the framework of global governance where several new topics emerge in the world’s economic and political order, the popularity of mega event is one of them. Rather than an official governmental meeting, major sport event is somewhat an “unofficial” way that people from all over the world interacts and have fun, greatly improving the overall welfare of human beings. This is related to the notion of “civil society”, an aggregate of non-governmental organizations and institutions that manifest interests and will of citizens (Dictionary.com.). Based on this contact, some value of the “civil society” has to be followed, like sustainability and humanism.

Yet many problems remain unsettled in China. Firstly, sustainability is not receiving well attention. Chinese government has been bidding blindly for the qualification of the major sport event. They exaggerate the social impact for those events. To get the qualification, they devote resources at any cost without considering the long-term effect just to build a so-called "all-time record" for certain event (Dong Jie, May 2012). Even though a "great" event like 2008 Beijing Olympics is branded, the post-Olympics situation is not satisfactory. Several stadiums like the Bird Nest are reported to have operation difficulties. Several preferential policies for the preparation of 2008 Beijing Olympics stops instantly after the closing of the Olympics. Obviously, major sport event is turning into a "fast food", not a long-term economic point. Secondly, humanism is also devastated in the whole process of major sport event. Sport event is intended to improve the welfare for citizens, but actually citizen' interests are bad damaged. For the preparation of the event, citizens are bearing much burden for tax due to the ever-increasing expenditure of the government. In addition, the city traffic is becoming more crowded during the event. Furthermore, the price of goods tends to rise following the stronger consumption capacity. Last but not least, the surrounding environment is badly impacted by the overcrowded visitors.

The advice is listed as follows. Firstly, the government should think twice before bidding for a sport event. They should evaluate the social impact of a sport event objectively, accurately, comprehensively and scientifically rather than regard it as the panacea for all social issues. Secondly, the utility rate of stadiums should improve. Local government should make full use of existing stadiums. The new-built stadium should have a comprehensive function for different sport activities. After the closing of event, they can be used as an ideal place for citizen' to exercise. Also it is suggested that the city can actively bidding for new event, avoiding idle resources. Besides, improving the management level of stadium and the specialized knowledge of personnel is able to enhance the utility rate. Thirdly, during the sport event, local government should guarantee the safety of a sport event while interfere the citizens' life to a lowest extent. We should figure out a detailed plan about the human resources needed, controlling precisely for numbers of personnel, especially volunteers from university students. Truly, a great security system is necessary during the event but it should be "tight in inside and loose in outside" on the premise of a stable social order (Done Jie, May 2012).

Conclusion

To Sum up, the Chinese sporting industry is at the historical turning point, which has experienced rapid growth in recent years. However, though the speed is impressive, the quality remains doubtful. Though the above analysis of the whole chain of the sporting industry, it is obviously seen that every step has spaces for improvement. The improvement needs the effort from diverse entities including government officials, public, sporting industries, media, enterprises, according perfectly with the notion of "global governance". In this process, it is wise to follow the principle of "global governance" in managing sport industry, to be specific, to rationalize the various relationships between each entity. In the future, I believe that sporting industry is the most dynamic sector in terms of economy. With the full potential of the local market, we have to have faith that the Chinese sporting industry will step into the orbit of professionalism and marketization and seize the opportunity to develop in the trend of globalization.

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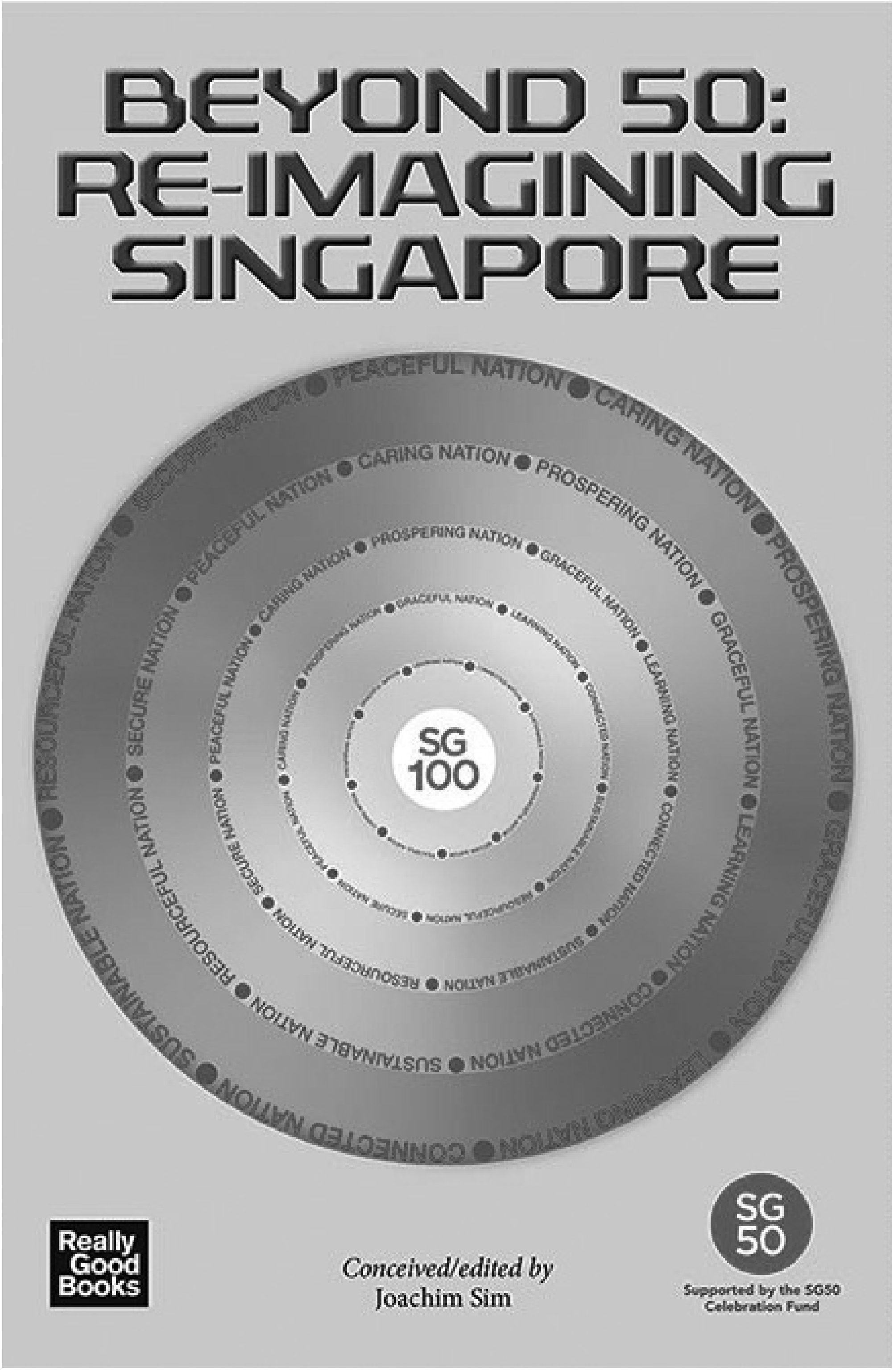
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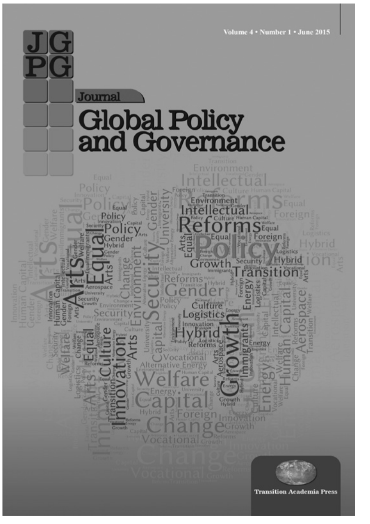

Journal of Global Policy and Governance
Aims and scope

Global governance is a challenge of our era and us as human beings no matter where we live and what values we believe in. After a 100 years of development, international relations are so closely and tightly knit. A problem in a community might affect the life of the people in a remote part of the world and its solution might also be in the hands of these people but can't be assumed outside the more global International Relations theories and practices approach, an interrelated already practiced at every policy decision making, economic and financial levels and first of all by the main powers.

How can we manage this complex of various relations matters for our life and common future? It is the time for us to invest our wisdom and energy to make global governance work now and to give a sense to the United Nations already reduced to a zero-sum-game playing on the major emergencies and conflicts due first of all to the obsolete veto system that would be at least extended to all the 15 countries of the Security Council, being them permanent or at rotation, with the weighting of votes bringing less hypocrite the present five Jalta powers partition already 70 years ago. We are talking of the world not existing anymore.

There is no simple way and framework for global governance. Global governance is a general term which means to think globally and act globally. It is complicated because problems might be local. It is complicated because problems might be also global. It is complicated because the solution of problems might be local but also in a global framework global. That is why we need to check issues case by case carefully. We need to sort out what solution is the best choice for the problem. We need to identify who should be the persons of good will taking the challenge and adding their intellectual and scientific capabilities to the human destiny. We have to take an action worldwide. Global issues are definitely the subjects of global governance. Meanwhile, global governance takes care of issues with local reasons and local solution because we believe the experience might be helpful for people living in other parts of the world.

Interdependence of International Relations with finance, economy, technology, research and advanced knowledge until a few years ago unimaginable, new military might introduced by innovation must be some of the crucial challenges, where also our Journal Global Policy and Governance intends to contribute opening its pages, issue after issue, to faculty, experts, testimonies, articles and relevant review of books, junior researches working papers. But we know also that traditional conflicts would not have any perspective in the medium term and will bring to the defeat of the ones who are imagining a return to the past.

We intend to embrace and reach all the possible interested colleagues and fellows around the world, as choices and strategies in all the sectors involving public and private governance, nobody excluded, are under questioning and innovative evaluation. Global world is not anymore a provocative statement, a kind of utopian return to realism and the theories dominant up to the German reunification, the end of Soviet Union and the war in the Balkans have now become obsolete by definition.

Middle East, Black Sea, Eurasia, Ukraine, Baltic, Turkey have the capability to reshape the future. Even if they are now in the middle of the fire, soon the devastations and impressive mass killings will be overcome and reconstruction taking the lead in many of these countries.

But why not underline the successful 30 years development and growth of China, a unique case in the last 500 years. China is the third world power, after European Union and USA, and has now similar problems we have encountered and are still facing nowadays, needs to find a political solution to reforming and giving voice to an accountability to its almost 1 billion 500 million inhabitants.

We really have to rethink the International Relations and the theories of Global Governance and Policy Choices, accepting the pluralities of institutional architectures and ways to give voice and accountability to the citizens. The European Union represents a “non Statehood” institutional governance, without even a Constitution and the Sovereignty belonging to the member countries. Do you believe the EU will change its architecture established by the Treaty of Rome in the future? This is an illusion of the antagonists of the different strategies and policies that were adopted right up to the Euro and the high welfare and technologic standards already achieved, even in the face of a crisis on 2008 that from the Atlantic arrived to Europe three years later and is now affecting East Asia. By 2020 we will be out of this tunnel everywhere in the world.

To add a valuable contribution to this scientific debate is our very aim and scope

Bodies and Organs

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