PAPER

Europe and Asia in the Age of Irreversible Globalization

and Fall of Nations

Giorgio Dominese

Abstract The Paper is focused on the crucial issues of the New Theories of Growth and of course a firm premise must be put forward for the Global Governance, in this really season of the history when winds of antagonist reactionary inspired thinking and political parties are tempted to embrace populism, nationalism, ethnic antagonism even racism. In a season of illiberal tolerance, a growing number of countries are affected and the adopted contrast measures seem still fragile and weak. International Relations, History and Political Sciences give room to realism and old fashioned approaches and policy choices without finding a valuable critical analysis and public debate.

The implications for the global order are quite alarming and the looming of more than 60 conflicts spreading all over the world are associated with main fires as the North Korea case or the never ending Middle East, South Asia, North West and East Africa, horrific terrorism ongoing and tyrants regimes still in power.

On the opposite side, the leadership of the reforming, open markets, economies and in primis the liberal democracies of the different inspirations are keeping higher the fences and the appropriate policies to dissipate the polluting clouds of extremism, while public opinions are poisoned by instrumental information, while too wide, diffused blind tolerance with movements and leaders who are feeding the authoritarian and nationalistic dangers, against constitutions and laws.

Are the New Theories of Growth in a revisionist process to compromise with the populism and demagogy contaminating the world? Even if apparently the political elites are very cautious of highering the tunes and the measures of contrast, the firm assumption that the globalism in the unique condition for growth and advancement of societies, economies and peace among nations is hardening fast. In fact, any possible restoration of the past is possible in the already irreversible structure of economies, finance, technology standards, human capital, higher environment priorities, new generation weaponries, outer space perspectives, energy shift from oil and coal: the list of the reasons to push back the front of antagonistic thinking, practices and governance might never end.

To enlighten the promising world governance and economies horizons to 2020-2030, the New Theory of Growth almost twenty years ago have added a terrific value added of research, innovative assumptions and policies: My paper proposes to read again the effective and well analyzed outcomes shown in the beginning of the mid Nineties with the publication of the Formel-G Global Trends 2020, by the Research Division of the Deutsche Bank. It was an

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applied and upgraded elaboration of the rigorous range and propositions by the distinguished scholars Romer-Mankiv-Weil from Berkeley University, announced by NEBER in December 1990. The New Theory of Growth is based in the relevant and quite impressive scientific and applied analyses of professors David Romer, Gregory Mankiv and Davis Weil. An extraordinary farsighted reviewing and enhancement of the global economics and governance perspectives of the world policies that I will summarize here as they might be not forgotten pillars in the scientific gathering of fellows, researchers and promising PhDs in the five continents and today at the CEA in Manchester University.

The dialectic between globalization and nationalism return should not be carried out purely on a kind of demagogic propaganda slogans among factions but in an intellectual and scientific frame, where no room is left for the destabilizing reactionary and shadow protagonists of the esoteric return to the past when ignorance and instrumental use of the institutions accompanied the world through the XIX and XX centuries governance, even if in presence of a great but elitist intellectual, scientific and cultural renaissance.

Nevertheless it had not even a comparison with the openness and accessible movement of people and ideas, the quality of life in contemporary society, where knowledge, scientific discoveries, arts and humanities, universities and think tanks are the one really face of the crucial factors of the "one World", not of nations or alliances but just the endowment of the new factors of growth and development under our eyes into a wide, unique human horizon, where races and skin colors are simply accepted, with reciprocal respect and inclusion policies.

Keywords Global vs. Nations - Conflicts - Theory of Growth - Policies

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Economic Cooperation, Globalization and its Enemies

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 economic, 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 recent developments and the concrete threat of wide conflicts are showing the true "clash of civilizations", that is not only the one proclaimed by the US historian Samuel P. Huntington¹ a few years ago - based mainly on the traditional contrasts and divide of faiths, ideologies, social 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. The first flying of the wings of the successful stories of the new economic order, the global openness full of opportunities; the second affected by the delusions of long caressed expectations of inclusiveness, in presence of the widening imbalances in wealth, poverty and jobs with the reduced middle classes and the multitude of lower income citizens.

¹ Samuel P. Huntington, author of "Clash of Civilizations" 2011, Simon & Schuster Publisher, New York

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 treated before as 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 and 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, practiced and predicted.

The classic cocktail of ingredients bringing to the "the revolution of the masses", so deeply analyzed by Ortega y Gasset² in his masterpiece of history, politology and economics on Europe in 1930, almost in coincidence with the advent of nihilist, nationalistic, militaristic ideologies interpreted soon later dramatically by nazism and fascism, with wars and racial discrimination up to the holocaust of almost 7 million Jews, and the catastrophic conclusion into the Second World War.

Back to the Global Vertical

To better focus the present situation in the world economy and society, Andrés Ortega is senior research fellow at the Elcano Royal Institute, a major Spanish foreign affairs think tank, had made an overview of approaches and interpretations quite simulating. I quote his recent contribution published by "The Globalist". There are horizontal periods indeed some people, Thomas Friedman among them, believed some years ago that the world was definitively flat. And then there are periods in which verticality imposes itself again. In many ways, we are once again moving from the horizontal to the vertical dimension of global affairs. This "verticality" is making itself especially felt in social terms. Social classes are back on the agenda, although not in the traditional Marxist sense of class struggle. Rather, we are now coping with the decline of the middle classes and the emergence of a broader "precariat." The social escalator is not working as in previous eras, despite renewed growth in many economies following the crisis. Benefits that were taken for granted, such as full-time jobs with social security protections, are disappearing in significant numbers ".

"Perhaps we are witnessing what Dennis J. Snower calls the "great decoupling," which he labels "dangerous," unlike its predecessor, which was "convenient." When economic progress is not mirrored or is not linked to social progress, discontent is generated in those left behind. This decoupling ends up manifesting itself in politics. This is what may be going on in many countries amid the prospect of recovery, an uneven emergence from the crisis and, before that, globalization, which is now generally acknowledged to have produced winners and losers. The decoupling phenomenon is arising when the advanced economies, both industrial and post-industrial, are recovering from the crisis. As Marc Fleurbaey of Princeton University argues, we must "prepare people for life and support them in life." Central to that is the commitment to education, particularly amid the challenge of technology and its controversial impact on employment and the concept of work. A smart policy approach in that regard, as Ylva Johansson, the Swedish Employment Minister, points out, is not protecting specific jobs (which may be dying) as protecting workers (which need to be actively equipped and/or a guided toward a new one)".

² Ortega y Gasset, The Revolt of the Masses, Madrid 1930, W.W. Norton & Company Publisher, New York

No Future without Global Governance

Nevertheless we have in front of us a wide, sophisticated 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 but very selective in quality and income. The list might be continued with tens of titles of value added reasons and benefits of the present and future scenarios of the human community. But antagonism is rising instead of convergence, or better the main stream of the convergence is encountering 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 cannot 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 scientific support all the most relevant schools of thinking and quantitative researches centres worldwide. Pascal Lamy³, 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. The scope of the challenges the world is facing has changed profoundly in the past decades more profoundly than we fully understand. The world of today is virtually unrecognizable from the world in which we lived one generation ago"⁴.

Looking to Europe and being in Manchester, I have to say Brexit has shown the negative perspective of the United Kingdom and it's fatal that the past index of competitiveness, attractiveness and power will be missed more and more, in a slow declining of economy, banking and financial activities, high tech former sectors of partnership with EU and international players. Nationalism, protectionism, populism will lead only to a deadlock. The sirens of the past are lacking vision, culture, intellectual and political credibility, in absence of the main factors that what made great the past of the UK.

A long way must be undertaken to spread the benefits of an efficient global system to the many who are still staying at the window with growing resentments, listening the sound of populist voices, public disappointment and pressures from 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 spectre of future illiberal, nationalist and totalitarian adventures in some countries already exposed to the contagion due to social and migration factors. Hannah Arendt's⁵ 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. But who imagined that this international community would be attracted as the butterfly by the candles fire is far from the direction history and basis pillars of the international conditionality.

³ P. Lamy, (2012) Director General of WTO, in a lecture at Oxford University in 2012 4 Ibid

⁵ Hannah Arendt's fundamental main 1951 work "The Origins of Totalitarianism", Harcourt, Brace and Co., 1951; "Elemente und Ursprünge totaler Herrschaft", Schocken Books, 1951

emerged as they do now in the public statements of the ruling leadership, a kind of slow-knockoff of the "American dream". A fatal illness that the "new world" cannot overlook or minimize. I mention this risk while listening to the Antonín Dvořák Symphony No. 9 "From the New World" in the integral version, with Herbert von Karajan conductor at the Vienna Philharmonic in October 1985. I invite you to have the pleasure to listen to it as well while in this privileged university, that could for sure raise the flag of "Universa Universis Manchester Libertas", as the ancient universities enlighten the past world history. That means within the sacred places of the total freedom of thought that has been always granted to teachers and students alike, starting with the really first universities of Padua, Bologna, Paris, Oxford, Coimbra, Siena, Jena, Naples, Al-Azhar Cairo, Cambridge. Heidelberg, Tübingen, Vilnius. In other words, the lacking of advanced culture, history roots, future vision, global shared roots might and common unity in diversities will lead fatally to the decline of all the contemporary great powers in absence of a global approach to the governance and environment challenging issues.

Transatlantic and Transpacific Partnership

The intellectual aims should contribute to dissipating the general perception- in Europe and I think in the US, as well in Asia - that we are into an irreversible transitional phase of international relations, regional agreements, global governance, markets openness, trade and investments, last generation technologies and the implied innovative applications - that will fatally bring to a problematic, never before assisted widening of the Atlantic and Pacific into forms of diverging approaches and polices affecting economic, trade, financial, security and global issues.

The high risk North Korea case will test the capability of the international and even more regional cooperation in Eastern Asia to develop enough credibility, convergent unity and might to deter and prevent a fatal unpredictable conflict through appropriate policies and in case military enforcement before irreparable events on large scale might happens. As well as the conflictual Russian operations against Ukraine; the Balkans still not yet completed pacification and integration into the common EU house; all the Middle East and Caucasus region not settled down definitively, after years of atrocities and terroristic attempts to bring the world to an irreversible implosion. Assad's Syria responsibility and horrible human rights offences perpetrated in a dramatic civil war that have been the main reason of the ISIL spreading out and threatening for years the world.

The weakness of the international community in 2013 in preventing also militarily the announced tragedy had been the first and most evident failure of the system of alliances. The never overcome attitudes of tyrants to impose their own despotic arrogance shows that Thucydides' traps are still around, a lesson that seems not learnt even after World War II up to the contemporary Great Middle East and North Africa butchery and horrible crimes against humanity.

US Indispensable Role

Now it is the time to fix a deadline to all these destabilizing factors and to give political alternative leadership to the more critical countries. The great contribution of the US must be of course out of discussion and perceived by all the international community. But it is in fact the real weak flank in this moment. The new Presidency at the White House, nine months after the election, is still dominated by rumors, polemics, astonishing humoral attitudes, false steps, contradictions and at the end lack of coherence with the expectations of American citizens, allies countries and

main players in world relations. The "exceptionalism" of the political American system "shock absorbers" seems not yet capable to prevail and bring back the First power on track and the indispensable domestic and international governance from the syndrome of a too much erratic and disturbing political disease. A picture that now is disappointing also the American leadership both in the Congress, among the citizens and in the financial, business community. But the restoration of authority, credibility and strategic vision is far from being on sight even if very urgent and widely perceived as a global priority.

EU Leading Economic Cooperation

The roles of Europe and Asia - with the key players as from one side Germany, France, Italy, Spain, Sweden, Poland and to some extent UK, even if any no more in a clear format due to unpredictable results of Brexit, while on the Asian side China, Japan, India, Indonesia, Pakistan, Iran and Viet Nam, just to mention some main real players - must become more and more effective in this historic international reshaped order settlement and new global governance.

A scenario and a perspective not only lightening the EU but as well the before mentioned countries and the second row of emerging players facing similar strategies and policy choices, from Latin America and Brazil, Argentina, Chile and Mexico to the Africa with South Africa, Nigeria, Kenya, Tanzania, Egypt. If acting alone, all of them will be in the future weaker than in the past and the great powers too would fatally lose steam if caressing at home nationalism, populism and racists poisoning ideas. The energies of globalization and systems of alliances will never surrender to the shadow and reactionary attempts to bring back the world to the past centuries. But the price to be paid by the international community and all human beings might become very high.

The Horizon of China, the New Silk Road and the Paradox of Russia

The paradox of Russia - in this phase and until new processes of economic, social and political reform - shows a main power that doesn't seem to be a compatible partner in these efforts and challenging economic, financial and geopolitical choices if not as military power perceived as a threat to the international order. China must be careful not to leave room to any attraction by the sirens of the old order suggesting to slowdown while still in need of courageous domestic reforms and upgrading indispensable for the full society and for the appreciated great role already assumed in world economy, trade and technologic progress.

The New Silk Road might be a new window of fresh air in the vision of the future international landscape in which China intends to further grow and assume international roles. But as I said in 2016 at the CEA Forum in Duisburg University, there are now some unpredictable conditionality pending. I want to pick up a very actual quote of my presentation one year ago: "China as well. To use a paradigmatic scenario, the South and East China Sea dispute over the islands and the freedom of navigation must soon - luckily encouraging signs already circulate - turn into a positive negotiation process leading to a general framework agreement for the international, global dimension of the interests and rights at stake. At the same time to specific bilateral formal LoU's to take then the format of real state treaties, in the ways and the forms that China will have to agree with the involved countries, more or less all the East Asian countries and the US. Any further sound of drums, or show of nationalistic drifts, skirmishes and antagonism in all the East and South Asian frame, as well in the international frame of the main player countries, could have rather unpredictable developments and might compromise the final results and also affect negatively the New Silk Road main scope and long term cooperation value added. To contain and

reduce pressures on this Asia-Pacific issues represent the best strategy in order to bring benefits to all the involved parties but first of all to China and its international role".

Of course China already arrived, after a forty year extenuate run, to conquest the top level of the main exclusive great power Club, with a great market oriented economy, trade and investments data really impressive and historically never seen before in the contemporary world, with middle classes growing beyond any expectation, even if the so called policy and social reforms are still waiting in stand-by or moving ahead slowly for the lower classes that amount around 2/3 of the population.. The strategy for the future has just a word: reforming. This is the message that Europe like to read and to hear, more and more.

The New Silk Road must be interpreting with more international vision this highly China valuable political contents of the governance. Also the Domestic industrial and financial main players are at stakes as you can't imagine trade and investments attractiveness simply like a developing countries new branding style. The success will be measured in the degree of internationalization of the Chinese system. For sure openness and reforms must be spreading inside China, first of all in the sensible sectors of high-tech, environment, internet access, aerospace, health and sound banking system, all chapters on which the market economy must be endorsed by a concrete and an effective, widespread of structural and sectoral reforms.

The involvement through the New Silk Road initiative of the South and Central Asia full geopolitical platform, the drive toward Eastern Europe, Baltic and Black Sea regions, as well as the widening of a Chinese Mediterranean perception and strategy, all these steps forward will upgrade more and more the already remarkable cooperation with the European Union and the countries closely connected and linked with the EU cooperation protocols beyond the Union Eastern Europe, Latin America and Africa. Asia will assist to a widening of the EU effectiveness in all the international oriented sectors of economy, finance and technology, but not excluding foreign policy and security. USA are not in this phase the unique main player in the crucial Asia affairs as in the past. If this will be the near future to 2030, China will have main partners in Europe and the world while the next transition steps will achieve hopefully the other goals still missing, as EU is expecting and wishing. In other words, East Asia will write with its future developments and policies the "peace or war among nations".

"Thucydides's Trap" Looming

The same considerations are really to the point, when a conflict with North Korea is still looming in presence of an effective, announced nuclear threat to the bordering countries as Japan and South Korea but with a fallout that might affect China and Russia as well, if not the same continental US. It means we are risking a widespread conflict starting regional and escalating to global dimension, like a really "Thucydides's Trap"⁶.

The horizon, on the other side, is announcing that partnership and deeper relations, common shared policies have been extended to the main crucial countries in Asia as well in Africa and in Latin America, mainly for the many reasons of the competitive success of the European Union in building up a solid presence of cooperation in trade, investments, security, innovation, environment, culture, university, infrastructures within almost all the mentioned regional partners. But still we have to consider the worsening and the contagious menace the international order, hit already by more than 60 ongoing conflicts around the world. Could we underestimate these factors of instability and threatens in discussing global and regional cooperation? Of

⁶ Graham Allison, Director Belfer Center for Science and International Affairs at JFK Harvard Kennedy School, Boston, in Destined to War-Can America and China Escape Thucydides' Trap, Houghton Mifflin Harcourt, Boston-New York

course not, so we have to be on the one hand "estote parati", as we learnt from the ISIL criminal terrorist actions inside and outside Middle East, with a high toll of victims in many countries of Europe until the last Barcelona and before Paris, Berlin, Brussels, London and Manchester just to mention the most horribles, a long horrific trace of blood and hate fueled instrumentally by absurd ideologies and sectarian religious believes but covering in fact wide geopolitical targets involving the entire world order.

The New Theory of Growth and Global Governance

The second part of this presentation is dedicated in fact to the new theory of growth nowadays, after the new industrial revolution is still ongoing. As progress often happens in the middle of turbulent times and history as shown to us in the last millennium.

For many years, I have been dealing in my university wide experiences - in Italy, Europe and abroad specifically in East Asia, China, Latin America and the US - at direct contact with situations, incertitude, populism and nationalisms already tested. We had been passing in the past similar moments of fibrillations and wondering on the future, questioning on the international order, on alliances to be updated, on the future of established non-statehood great innovative experiences as the European Union, but also regional approaches to international cooperation and trade as never before was experienced.

My scientific efforts will continue to look for widening a partnership of research and feasibility options in the main interdependent areas when talking in the frame of International Relations and the Global Governance implied. In fact, many crucial and disparate disciplines and areas of studies need to be more and more involved and integrated in a kind of unique composite knowledge indispensable to govern the geological magnitude dynamics of evolution ahead in the history, policies, technologies and societies change.

Who still believes that there are possible ways of blocking the transition to future achievements and to new conquests in these directions - assuming the vision and the praxis of the metaphoric antagonist, as from the literature and the developments of last centuries -, will encounter the challenge of advancement in new social, economic and cultural changes that will fatally overcome in the long run all the attempts to invert the direction of history, hopefully in peace or fatally through war.

A relevant contribution to the understanding of the irreversible changes factors up from 1980 was brought by the debate and massive scientific efforts that had accompanied the New Theoriesof 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.

Economics and Institutions

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 focused on 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 and institutional implications.

In fact, the institutions determine nowadays the way and conditionality into which "systems" must be governed effectively and in a 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 Smith⁷ 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 had become more visible, transparent and with a high degree of efficiency even when interfering with the classic theories but on the other had shifted into a more impenetrable and invisible challenge and daily confrontation to protect the sensitive "core" of the technologies and military high standing advanced sectors. That's why - to use a popular assumption not far from the truth - 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, monitors and interferes. We might respond by 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 happened 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 started really here and proceeded quickly up to the beginning of the new 21st Century . A constellation of many but very significant outcomes of researches and institutional focusing on the 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.

^{7 &}quot;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.

These remarks are a bit far off - I am aware - from the traditional approach to systemic analyses. But at the end, we have fuelled a wider debate on peculiar and in many ways different starting conditions. No forms of conditionality or corporative or intellectual barrier 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.

Even 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 think-tanks 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 with 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 repercussion of a possible Brexit has been managed in 2015 quite successfully, 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. The same not affecting showdown had come from Brexit, where the really very many negative consequences more and more appears to be affecting UK and not RU.

The Amazing around Year 1990

Which amazing events happened then in the years around 1990? Well, to mention just some of the main 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 the 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 Europe and all in Middle East and Africa.

The contagion has been spreading out by the four years a civil war in Syria, in fact a regime butchering almost four hundred thousand lives and producing at least four millions refugees outside the country; by the open wounds of the still in action ISIL threatens and the stabilization of Iraq, the questioning on evolution in Turkey and the role of Iran are all on the hot list of problematic repercussions; finally, by the not yet resolved Israeli dialogue with Palestinians on the West Bank future and the connected lacerating problems. In conclusion, the even wider implications and spreading of the 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 2017 scenario.

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-Weil⁸, 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. Coase⁹, who was Nobel Prize of Economic Sciences 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.

NBER WORKING PAPERS SERIES A CONTRIBUTION TO THE EMPIRICS OF ECONOMIC GROWTH N. Gregory Mankiw David Romer David N. Weil Working Paper No. 3541

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⁸ N. Gregory Mankiw, David Romer, David N. Wei, "A Contribution to the Empirics of Economic Growth", NBER Working Paper No. 3541, 1990

⁹ 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.

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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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Law and Economics

But Ronald Coase¹⁰ 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.

¹⁰ These citations are from Professor Ronald H. Coase's Nobel Prize Lecture in Stockholm and following comments.

"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 ¹¹ 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 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 Charles Darwin 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".

The Transition Towards 2030-2050

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.

^{11 &}quot;The Institutional Structure of Production" interview

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-G¹² 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 capita13. Therefore, forecasts of economic growth with the help of simple growth decompositions require more or less arbitrary assumptions on technological progress14. 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 function¹⁵

Production function in the Solow model

$$Y_{t} = Kt^{\alpha} \bullet (A_{t} \bullet L_{t})^{1-\alpha}$$

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 work¹⁶. 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

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

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

¹² Deutsche Bank Research Formel-G

¹³ This is set out very clearly by Barro, Sala-i-Martin (2004), pp. 457 and 460.Hanna

¹⁴ For example, filter techniques with averages of the past are applied or absolute convergence with other countries is assumed.

¹⁵ Theoretical foundation: the production function

¹⁶ Easterly and Levine (2001) even observe a divergence in income levels.

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.

Production function in Formel-G

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

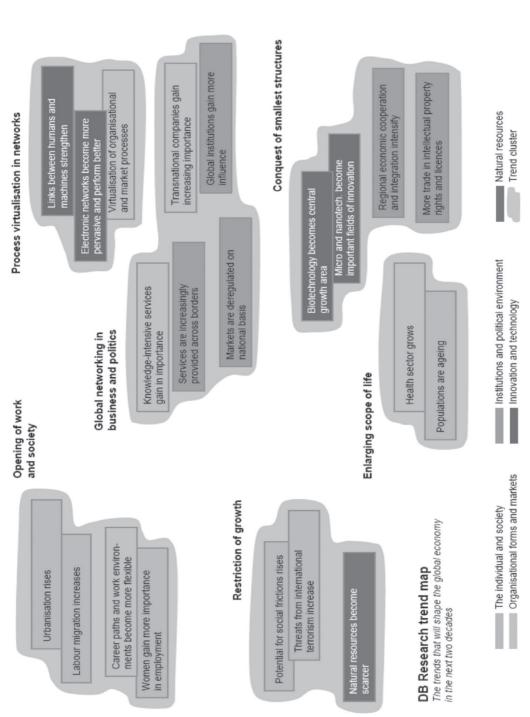
The search for P gave rise to a flourishing literature dealing with the role of politics, institutions, knowledge and innovation17. In their overview, Durlauf, Johnson and Temple (2004)18 identify 42 "growth theories" using a total of 102 variables – which may be combined in different variations19.

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.

¹⁷ 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.

¹⁸ Durlauf, Johnson and Temple (2004)

¹⁹ Temple (1999) also gives an excellent overview.



DBR - Deutsche Bank Research's trend map