CHANGING THE PATTERNS OF THE GLOBAL ECONOMY – THE EMERGENCE AND EVOLUTION OF THE BRIC COUNTRIES*

OGREAN Claudia
HERCIU Mihaela

Abstract:

The world is (permanently) changing – and from time to time major shifts occur and redefine its patterns of evolution. The global economy within it gets new leading actors and defining features, new power balance and architecture. This is inevitable in order to develop. Sometime of these shifts seem to be the result of a scientifically grounded, well defined and consciously applied strategy, and sometime it seems to be the result of some kind of a Brownian movement (something like: "it just happened").

In this paper we analyze the fascinating "case" of the BRIC countries (Brazil, Russia, India and China). Having some (a few) common features, but actually being very different (in most of the aspects), and in an absence of a unique mission, vision and development strategy, the four countries have started to be seen as an entity (given their previous evolution and based on forecasting studies) – not only able to change the patterns of the global economy, but, more than that, able to lead it in the (almost near) future (the year 2050).

This very optimistic projection of Goldman Sachs obviously has (and still have) its critics, but the governments of the BRICs took it very seriously – by assuming the theory and organizing annual common meetings – the best of the validation! The impact of the global crisis (and recession) on the BRICs is a major challenge for them and the opinions also vary a lot in this aspect – from "BRICs didn't experience the crisis yet" to "BRIC will offer the best models of recovery"; we just have to "wait and see".

Keywords: *BRIC countries, development, EU, crisis, models of development*

BRIC countries – general characteristics and particular features

There is almost a decade since Jim O'Neill has first introduced to us the *BRIC countries* – Brazil, Russia, India and China – through a Global Economics Paper of the Goldman Sachs named *Building Better Global Economic BRICs* (see O'Neill, 2001).

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*** We mostly used Goldman Sachs references and approaches in order to ensure the comparability of data

Starting with the emphasizing of the 20 leading economies in the world relative to the year 2000 (see Table 1), he realizes that *a new approach* has to emerge when we talk about the world economy, based on some major shifts which has took place lately and will also occur into the near future, changing radically the whole economic picture (the comparison has been made between the economic development within G7 especially and that that took place into the so called developing world).

Table 1: 20 leading economies in the world in 2000

	GDP (PPP Weights[1]); 2000 US$bn	Share of World Total (%) (1)	GDP (Current Prices); 2000 US$bn	Share of World Total (%) (2)	Difference in Share (1-2)	Population (mns)	GDP Per Capita (current prices)
United States	9,963	23.98	9,963	33.13	-9.15	281.42	35,401
China	5,230	12.59	1,080	3.59	9.00	1,266.80	852
Japan	3,319	7.99	4,760	15.83	-7.84	126.87	37,515
India	2,104	5.06	474	1.58	3.49	1,002.14	473
Germany	2,082	5.01	1,878	6.25	-1.23	82.02	22,898
France	1,458	3.51	1,289	4.29	-0.78	58.89	21,890
UK	1,425	3.43	1,417	4.71	-1.28	59.50	23,810
Italy	1,404	3.38	1,077	3.58	-0.20	57.53	18,719
Brazil	1,214	2.92	588	1.96	0.97	167.72	3,507
Russia	1,120	2.70	247	0.82	1.88	145.49	1,696
Canada	903	2.17	699	2.33	-0.15	30.75	22,747
Mexico	890	2.14	574	1.91	0.23	97.36	5,901
Spain	797	1.92	560	1.86	0.05	39.47	14,190
Korea	770	1.85	457	1.52	0.33	47.27	9,678
Indonesia	696	1.68	154	0.51	1.16	210.49	730
Australia	523	1.26	382	1.27	-0.01	19.16	19,933
Taiwan	477	1.15	310	1.03	0.12	22.32	13,899
Turkey	437	1.05	203	0.67	0.38	67.38	3,007
Thailand	430	1.04	122	0.41	0.63	62.32	1,956
Netherlands	416	1.00	370	1.23	-0.23	15.86	23,334
World	**41,552**	**100**	**30,073**	**100**	–	6,073.00	4,952
of which: G7	20,555	49	21,082	70	-20	692.66	30,437
Euroland	7,231	17	6,027	20	-3	304.07	19,820

[1] US used as benchmark for computing GDP in PPP terms

(Source: O'Neill, *Building Better Global Economic BRICs*, GS, 2001)

Analyzing the evolution of the past and developing, also, four different scenarios for the future trends, O'Neill has made a 10 year projection regarding the BRIC countries versus the G7 – the results suggest significant changes in the global economic architecture (see Table 2 and Table 3).

Table 2: GDP Weight Comparisons

	PPP Weight (1)	Current GDP Weight (2)	Ratio (1/2)
China	12.59	3.59	3.51
India	5.06	1.58	3.20
Brazil	2.92	1.96	1.49
Russia	2.70	0.82	3.29
Total	**23.27**	**7.95**	

(Source: O'Neill, *Building Better Global Economic BRICs*, GS, 2001)

Table 3: Nominal GDP, real GDP and CPI inflation assumptions

%	Nominal GDP (%) Next 10 Years	Real GDP	CPI
US	5.0	3.0	2.0
Euroland	4.5	2.5	2.0
UK	5.0	2.5	2.5
Canada	4.6	3.0	1.6
Japan	1.0	1.0	0.0
China	9.5	7.0	2.5
India	10.0	5.0	5.0
Brazil	7.5	4.0	3.5
Russia	10.0	4.0	6.0

(Source: O'Neill, *Building Better Global Economic BRICs*, GS, 2001)

The term *BRIC* was then rapidly assimilated into the current economic language, and it also has (unpredictable and unexpected) been assumed by the four countries which have even started to organize, on an annually basis, summits at their top political managements levels – the foreign ministers. The term itself (but, more than that, the significance behind it) also has its opponents – the major differences between the four countries being their major arguments, that can not bring them together – not even within an acronym.

But who are these countries and why are they important? Into a study developed just an year ago for the European Commission (which has analyzed BRICs in terms of challenges and opportunities for European competitiveness and cooperation – so, that has been taking seriously the BRICs), it was set that "the BRICs' *common features* include *large territory and population, low income levels but also fast economic growth* resulting in the emergence of a prosperous local middle class. (…) Beyond their common features the individual BRIC countries are rather *heterogeneous*, *posing quite different challenges and calling for specific policy responses on the side of their partners*, especially the EU. *Opportunities* for trade and investment in the large and rapidly expanding BRIC markets are obvious and companies from the EU are already well positioned there. Major *challenges* include the cost competition in product markets, changing patterns in global commodity flows (energy, metals and food), non-tariff barriers to trade, regulative deficiencies e.g. concerning intellectual property rights and various institutional impediments to foreign investment" (see Havlik et al., 2009).

In order to look at each one of the BRICs *individually*, we appeal to and use the data and information from the 2009 report *Models of BRICs' Economic Development and Challenges for EU Competitiveness* (see Ghosh et al., 2009):

A. BRIC Countries in figures:

Brazil – it is classified as an upper-middle-income country with a GDP of EUR 973 billion and a GDP per capita of approximately EUR 5140 (EUR 7839 measured at PPP) in 2007, being the world's 8th largest consumption market in 2007. In 2007 the economy ranked 10th worldwide. From 2000 to 2007, the average GDP growth rate has been around 3.4%; in 2008, even with the impact of the financial crisis in the last quarter, the Brazilian GDP grew by 5.2% (see Marcos Ribeiro, in Ghosh et al., 2009).

Russia – the Russian economy has been booming during the past decade (…) Russian GDP growth exceeded 8% in 2007; even in 2008, when the global financial turmoil started to bite, GDP growth still reached 5.6%. During the past five years, real GDP increased by more than 40%. At purchasing power parity (PPP), Russia's GDP amounted to EUR 1900 billion in 2008. In per capita terms, the Russian PPP-based GDP reached EUR 13,500 in 2008 (see Peter Havlik, in Ghosh et al., 2009).

India – the country has sustained a high and accelerating rate of growth over the past 25 years (real GDP growth has accelerated from around 3.5% per year in the 1960s and 1970s to around 9% since 2003).GDP was EUR 2339 billion in PPP terms, making India the fourth largest economy in the world, while in terms of nominal exchange rates, the GDP amounted to EUR 759 billion in 2007. Per capita GDP in

2007 was EUR 2108 at PPPs, or EUR 684 in nominal exchange rates (see Jayati Ghosh, in Ghosh et al., 2009).

China – the economic growth over the past 30 years has been unprecedentedly high, reaching an average annual rate of 9.8%. But starting from a very low level, China's GDP per capita is still relatively small and amounted to only EUR 1867 in 2007, which classifies China as a 'lower middle income country' according to the World Bank's definition. However, converted at purchasing power parities (PPP), GDP per capita is significantly higher, reaching EUR 4464 (see Waltraut Urban, in Ghosh et al., 2009).

B. BRICs' models of evolution (see Ghosh et al., 2009):

Brazil

- ✓ it followed the model of a domestically oriented, service-driven economy, with a relative large private sector (>80% of GDP) and foreign direct investment playing an important role.
- ✓ on the negative side there are poor infrastructure, high informality, low productivity and little innovation.
- ✓ the services sector takes the biggest share (66% of GDP), supplying services for the domestic economy mainly.
- ✓ major manufacturing industries include aerospace, bio-ethanol and automotives.
- ✓ since 2004, a more outward looking policy has been propagated by the government, promoting exports and fostering technological development to increase international competitiveness.
- ✓ in 2008, additional tax incentives for investment, R&D and exports were introduced.

Russia

- ✓ when transforming from a centrally planned economy to a market economy, has liberalized first and 're-centralized' later.
- ✓ in 2007, the private sector accounted only for 65% of GDP.
- ✓ FDI helped to support growth, but its stock is still relatively low, due to many impediments.
- ✓ on the negative side of high economic growth there are high inflation, strong appreciation of the rouble without increases in productivity, and a declining population and labour force.
- ✓ economic development is highly dependent on the extraction and export (price!) of mineral oil and gas.
- ✓ in 2007, a new long-term development programme and a new industrial policy, respectively, was launched, aiming at the diversification of the production structure towards (high-tech) manufacturing by improving the investment climate, promoting 'public private partnership' and investing more in infrastructure.

India

- ✓ its economic development is essentially service-led, supported by exports of services (especially IT-enabled services); manufacturing exports are relatively small and are concentrated on a few sectors only.

- ✓ the share of agriculture in GDP is still very high (16%).
- ✓ after liberalization, starting in 1980, the private sector is currently generating more than 80% of GDP.
- ✓ rules for FDI have been eased as well, yet the FDI stock is still small.
- ✓ wages are very low, but the overall education level, particularly with respect to technical qualifications, is very low as well.
- ✓ a major stumbling bloc to further development is the underdeveloped infrastructure.
- ✓ a new government programme has been launched recently to expand rural infrastructure and to increase funding for education and infrastructure in general.

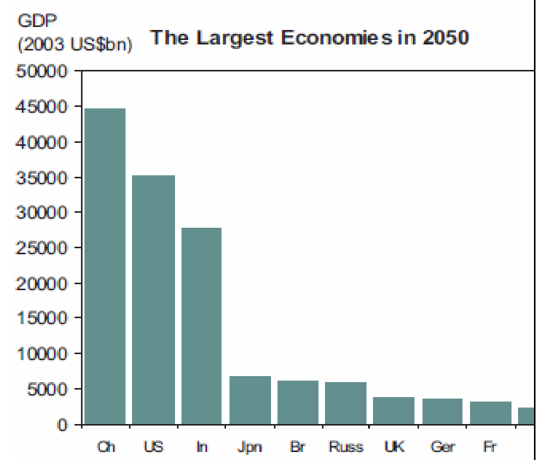
China

- ✓ it refers to its system as a 'socialist market economy,' with markets taking a pivotal role, but public ownership, direct government interference and industrial policy measures representing an integral part of the system. Currently, the private sector is estimated to generate about 65% of GDP.
- ✓ China's economic development is driven by manufacturing exports and by investments (including infrastructure).
- ✓ FDI plays an important role, especially for exports. Recently outward FDI, mainly to secure raw materials, has been increasing.
- ✓ although generating fast growth for over 30 years, the system has come under criticism recently because of rising income inequalities, environmental degradation, rapidly increasing energy demand and external imbalances.
- ✓ a new model of 'qualitative growth' is propagated by the Chinese government since 2003, emphasizing domestically oriented growth, industrial restructuring towards higher value added industries, cleaner and more energy-efficient technologies and more balanced regional and sectoral development; FDI should support these goals.

Projecting the performances of BRICs until 2050; real evolutions and challenges

Being the first who has mentioned the BRICs (into one of its report in 2001) – and because its first projections were confirmed by the economic reality – Goldman Sachs has also developed a first long-time scenario (in 2003) which has become a referral in this field: *Dreaming With BRICs: The Path to 2050* (see Wilson and Purushothaman, 2003).

Fig. 1: The largest economies in 2050



(Source: Wilson & Purushothaman, *Dreaming With BRICs: The Path to 2050,* GS, 2003)

Table 4:

BRICs Real GDP Growth: 5-Year Period Averages				
%	Brazil	China	India	Russia
2000-2005	2.7	8.0	5.3	5.9
2005-2010	4.2	7.2	6.1	4.8
2010-2015	4.1	5.9	5.9	3.8
2015-2020	3.8	5.0	5.7	3.4
2020-2025	3.7	4.6	5.7	3.4
2025-2030	3.8	4.1	5.9	3.5
2030-2035	3.9	3.9	6.1	3.1
2035-2040	3.8	3.9	6.0	2.6
2040-2045	3.6	3.5	5.6	2.2
2045-2050	3.4	2.9	5.2	1.9

(Source: Wilson & Purushothaman, *Dreaming With BRICs: The Path to 2050,* GS, 2003)

The largest economies in 2050 (with China on the 1st position, India on the 3rd position, Brazil on the 5th position and Russia on the 6th position) and *BRICs real GDP growth: 5-year period average from 2000 until 2050* (meaning an average of: 3.7% for Brazil, 4.9% for China, 5.75% for India and 3.46% for Russia – values calculated as averages of the 5-year period averages mentioned by the authors) as they resulted from the study are presented in Figure 1 and Table 4.

The most important projections and results that the Report of the Goldman Sachs's Summary reveals are (Wilson and Purushothaman, 2003):

"If things go right, *in less than 40 years, the BRICs economies together could be larger than the G6 in US dollar terms*. *By 2025 they could account for over half the size of the G6.* Currently they are worth less than 15%. Of the current G6, only the US and Japan may be among the six largest economies in US dollar terms in 2050" – see Table 5.

Table 5:

Projected US$GDP												
2003 $USbn	BRICs				G6							
	Brazil	China	India	Russia	France	Germany	Italy	Japan	UK	US	BRICs	G6
2000	762	1078	469	391	1,311	1,875	1,078	4,176	1,437	9,825	2,700	19,702
2005	468	1724	604	534	1,489	2,011	1,236	4,427	1,688	11,697	3,330	22,548
2010	668	2998	929	847	1,622	2,212	1,337	4,601	1,876	13,271	5,441	24,919
2015	952	4754	1411	1232	1,767	2,386	1,447	4,858	2,089	14,786	8,349	27,332
2020	1333	7070	2104	1741	1,930	2,524	1,553	5,221	2,285	16,415	12,248	29,928
2025	1695	10213	3174	2264	2,095	2,604	1,625	5,567	2,456	18,340	17,345	32,687
2030	2189	14312	4935	2980	2,267	2,697	1,671	5,810	2,649	20,833	24,415	35,927
2035	2871	19605	7854	3734	2,445	2,903	1,708	5,882	2,901	23,828	34,064	39,668
2040	3740	26439	12367	4467	2,668	3,147	1,788	6,039	3,201	27,229	47,013	44,072
2045	4794	34799	18847	5156	2,898	3,381	1,912	6,297	3,496	30,956	63,596	48,940
2050	6074	44453	27803	5870	3,148	3,603	2,061	6,673	3,782	35,165	84,201	54,433

(Source: Wilson & Purushothaman, *Dreaming With BRICs: The Path to 2050,* GS, 2003)

"*Individuals in the BRICs* are still likely to be poorer on average than individuals in the G6 economies, with the exception of Russia. China's per capita income could be roughly what the developed economies are now (about US$30,000 per capita)" – see Table 6.

Table 6:

Projected US$GDP Per Capita										
2003 US$	BRICs				G6					
	Brazil	China	India	Russia	France	Germany	Italy	Japan	UK	US
2000	4,338	854	468	2,675	22,078	22,814	18,677	32,960	24,142	34,797
2005	2,512	1,324	559	3,718	24,547	24,402	21,277	34,744	27,920	39,552
2010	3,417	2,233	804	5,948	26,314	26,877	23,018	36,172	30,611	42,926
2015	4,664	3,428	1,149	8,736	28,338	29,111	25,086	38,626	33,594	45,835
2020	6,302	4,965	1,622	12,527	30,723	31,000	27,239	42,359	36,234	48,849
2025	7,781	7,051	2,331	16,652	33,203	32,299	28,894	46,391	38,479	52,450
2030	9,823	9,809	3,473	22,427	35,876	33,898	30,177	49,944	41,194	57,263
2035	12,682	13,434	5,327	28,749	38,779	37,087	31,402	52,313	44,985	63,017
2040	16,370	18,209	8,124	35,314	42,601	40,966	33,583	55,721	49,658	69,431
2045	20,926	24,192	12,046	42,081	46,795	44,940	36,859	60,454	54,386	76,228
2050	26,592	31,357	17,366	49,646	51,594	48,952	40,901	66,805	59,122	83,710

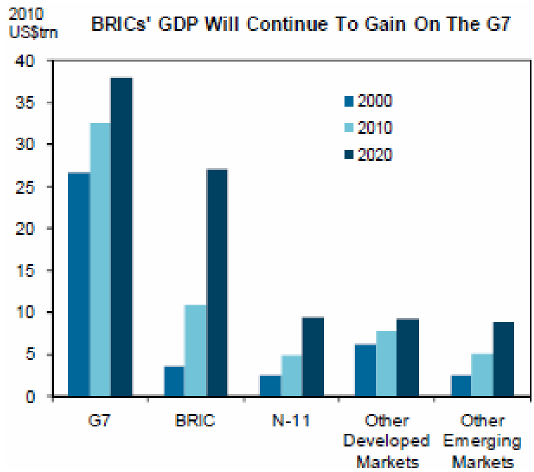
(Source: Wilson & Purushothaman, *Dreaming With BRICs: The Path to 2050,* GS, 2003)

"The *key assumption* underlying our projections is that the *BRICs maintain policies and develop institutions that are supportive of growth*. Each of the BRICs faces significant challenges in keeping development on track. This means that there is a good chance that our projections are not met, either through bad policy or bad luck. But *if the BRICs come anywhere close to meeting the projections set out here, the implications for the pattern of growth and economic activity could be large. The relative importance of the BRICs as an engine of new demand growth and spending power may shift more dramatically and quickly than expected.* Higher growth in these economies could offset the impact of greying populations and slower growth in the advanced economies."

In order to be able to see if there is a pattern for this kind of development which could be applied to some other countries, we have to mention here that into the report is considered that *"the main ingredients" in order to ensure "the conditions for growth"* are: sound macroeconomic policies and a stable macroeconomic background; strong and stable political institutions; openness; high levels of education (see Wilson and Purushothaman, 2003).

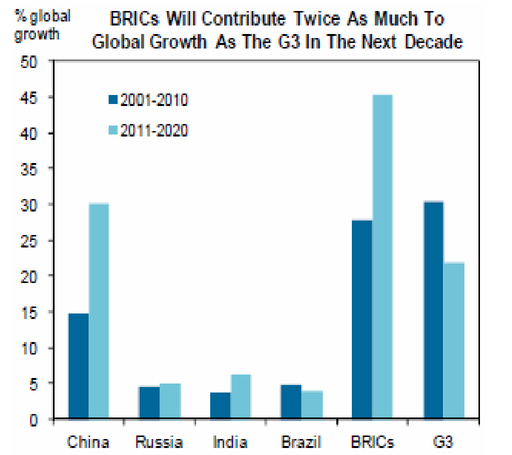
Talking in terms of real *evolution* (in order to see if it is according or not to the projections which have been made by Goldman Sachs, confirming or not its theory), "the last decade saw the BRICs make their mark on the global economic landscape. *Over the past 10 years they have contributed over a third of world GDP growth and grown from one-sixth of the world economy to almost a quarter (in PPP terms).* Looking forward *to the coming decade, we expect this trend to continue and become even more pronounced*" (Wilson et al., 2010) – see Fig. 2 and Fig. 3.

Fig. 2:



(Source: Wilson, Kelston, and Ahmed, *Is this the "BRICs Decade"?*, GS, 2010)

Fig. 3:



(Source: Wilson, Kelston, and Ahmed, *Is this the "BRICs Decade"?*, GS, 2010)

But, despite these positive evolutions and confirmations, the global crisis has occurred. Although, when Goldman Sachs made its regular report (December 2, 2009), the main economic forecasts have lead to the resolution of *The Outlook for 2010/2011: Exciting, with Risks!* – see Table 7 (O'Neill et al., 2009).

Table 7:

	2008	2009	2010	2011
Real GDP, % chg, yoy				
China	9.0	8.7	11.4	10.0
India	6.7	6.6	8.2	8.7
Hong Kong	2.5	-3.0	5.8	5.3
Indonesia	6.1	4.5	5.8	6.0
Malaysia	4.6	-2.5	5.0	5.2
Philippines	3.8	1.6	4.2	5.0
Singapore	1.1	-1.8	6.2	5.2
South Korea	2.2	0.3	4.8	4.6
Taiwan	0.7	-2.5	5.5	4.8
Thailand	2.5	-3.2	4.2	4.5
Brazil	5.1	0.5	5.8	5.0
Argentina	6.8	0.1	4.0	3.6
Mexico	1.3	-6.9	4.2	3.5
Venezuela	4.8	-1.5	2.6	2.4
Russia	5.6	-9.0	4.5	5.5
Turkey	0.9	-5.5	5.5	4.5
South Africa	3.1	-1.9	2.6	3.5
Central and Eastern Europe	3.6	-1.1	2.3	3.9
Asia ex Japan	6.8	5.8	9.0	8.4
Latin America	4.2	-1.7	4.7	4.2
BRICs	7.5	5.0	9.2	8.6
Emerging Markets	6.2	2.7	7.7	7.3

(Source: O'Neill et al., *The Outlook for 2010/11: Exciting, with Risks!*, GS, 2009)

Table 8:

Real GDP Growth Forecasts

%yoy	2008	2009		2010		2011
		GS	Consensus*	GS	Consensus*	(GS)
USA	0.4	-2.5	-2.4	2.1	2.7	2.4
Japan	-0.7	-5.2	-5.7	1.5	1.4	1.6
Euroland	0.6	-3.9	-3.8	1.5	1.2	1.9
UK	0.6	-4.6	-4.5	1.9	1.2	3.4
Europe	0.8	-3.7	-3.6	1.7	1.3	2.3
China	9.0	8.7	8.5	11.4	9.6	10.0
India	6.7	6.6	6.1	8.2	7.6	8.7
Brazil	5.1	0.5	-0.4	5.8	4.6	5.0
Russia	5.6	-9.0	-7.7	4.5	3.5	5.5
BRICs	7.6	5.0	4.7	9.2	7.6	8.6
Advanced Economies	0.6	-3.1	-3.1	2.1	2.1	2.5
World	2.7	-0.8	-0.9	4.4	3.8	4.5

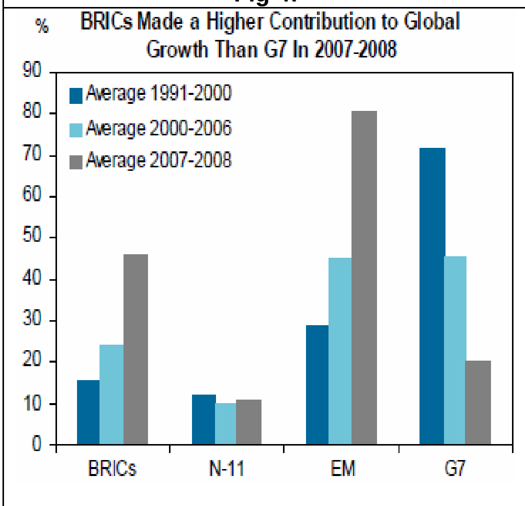
* Consensus Economics November 2009. Source: GS Global ECS Research

(Source: O'Neill et al., *The Outlook for 2010/11: Exciting, with Risks!*, GS, 2009)

The main observations at that point were: “With respect to GDP growth, according to our forecasts both 2010 and 2011 are going to be rather strong years. We now forecast 4.4% for 2010, and a higher 4.5% for 2011 (see Table 8). We are above consensus for next year and, while there is no consensus as such for 2011, we suspect we are significantly higher than consensus for 2011 also. Compared with this time last year, it is rather pleasing to write about our GDP outlook” (O’Neill et al., 2009).

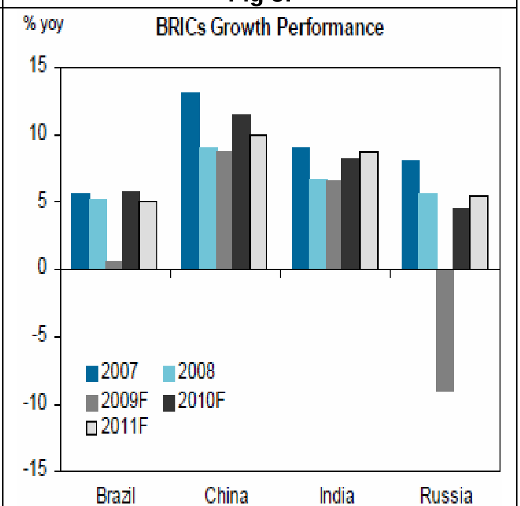
These entire emphasized aspects are based on the real figures (which sometimes have overcome expectations – regarding Brazil, India and China especially, and also Russia before the crisis), telling us that ”the *relative importance of the BRICs and G7 for the global economic landscape has changed* at a rapid and dramatic pace, *particularly in terms of growth*. *Between 2000 and 2008, the BRICs contributed almost 30% to global growth in US Dollar terms, compared with around 16% in the previous decade*. At the same time, *the G7’s contribution has fallen from over 70% in the 1990s to just 40% on average during the current decade*. And although the advanced economies together still contribute more than the BRICs on this 2000-2008 average measure, since 2007 alone China has contributed more than any of them, including Euroland (see Fig. 4 and Fig. 5).

Fig 4:



(Source: O’Neill and Stupnytska, *The Long-Term Outlook for the BRICs and N11Post Crisis*, GS, 2009)

Fig 5:



(Source: O’Neill and Stupnytska, *The Long-Term Outlook for the BRICs and N11Post Crisis*, GS, 2009)

Since the start of the crisis in 2007, the BRICs’ contribution has risen even more: some *45% of global growth has come from the BRICs*, up from 24% in the first six years of the decade. The N-11 (the so called ”next 11 emerging economies”: Indonesia, Philippines, Bangladesh, Egypt, Korea, Turkey, Nigeria, Vietnam Iran, Pakistan and Mexico) contribution has risen by a modest 1% in the last two years, to 11%. *The contribution from all emerging markets as a whole was over 80%* (vs. the

2000-2006 average of 45%). The G7 has only contributed 20% in the past two years. *While the 2000-2006 contribution to global growth was almost equally split between the developing and developed world, the last two years saw the trend change sharply, with the divergence mainly driven by the BRICs*" (O'Neill and Stupnytska, 2009).

In *conclusion*, comparative to the initial estimation and projects which has been made in 2003, Goldman Sachs updated the trajectories of evolution, optimistically confirming the models of the BRICs' success story and emphasizing on the same time: "we now think it is more likely, rather than less, that China will become as big as the US by 2027 and the BRICs will become as big as the G7 by 2032. China, Brazil and India have all performed particularly well, and although Russia has not done so recently, as long as it recovers quickly, it deserves its position as a BRIC" (O'Neill and Stupnytska, 2009).

References:

- Bhattacharya, A., Hemerling, J., Walternamm, J. (2010), *Competing for Advantage. How to Succeed in the New Global Reality*, The Boston Consulting Group
- Enderwick, P. (2009), *responding to global crisis: the contribution of emerging markets to strategic adaptation*, in International Journal of Emerging Markets, Vol.4 No. 4 pp. 358-374
- Falk, S. (2009), *"Shift of power" or multipolarity?*, in Zeitschrift für Politikberatung, 2: 577-589
- Ghosh, J., Havlik, P., Ribeiro, M., Urban, W. (2009), *Models of BRICs' Economic Development and Challenges for EU Competitiveness*, The Vienna Institute for International Economic Studies, Research Reports, 359, December, available online at http://publications.wiiw.ac.at/?action=publ&id=details&publ=RR359
- Havlik, P., Stollinger, R., Pindyuk, O., Hunya, G., Dachs, B., Lennon, C., Poplawski Ribeiro, M., Ghosh, J., Urban, W., Astrov, V., Christie, E. (2010), *EU and BRICs: Challenges and opportunities for European competitiveness and cooperation*, in Industrial Policy and Economic Reform Papers No. 13, Enterprise and Industry Directorate-General European Commission, available online at http://ec.europa.eu
- O'Neill, J. (2001), *Building Better Global Economic BRICs*, in Global Economics Paper No: 66, GS Global Economics Website, available online at http://www2.goldmansachs.com/ideas/
- O'Neill, J., Wilson, D., Garzarelli, F., Berezin, P., Stupnytska, A., Ahmed, S., Kelston, A. (2009), *The Outlook for 2010/11: Exciting, with Risks!*, in Global Economics Weekly, GS Global Economics, Commodities and Strategy Research, Issue No: 09/43, December 2
- O'Neill, J., Stupnytska, A. (2009), *The Long-Term Outlook for the BRICs and N11Post Crisis*, in Global Economics Paper No: 192, GS Global Economics, Commodities and Strategy Research, December 4

- O'Neill, J., Wilson, D., Daly, K., Stupnytska, A., Ahmed, S., Kelston, A., Carlson, S. (2010), *Looking into the Second Half*, in Global Economics Weekly, GS Global Economics, Commodities and Strategy Research, Issue No: 10/29, July 28
- Wilson, D., Purushothaman, R. (2003), *Dreaming With BRICs: The Path to 2050*, in Global Economics Paper No: 99, GS Global Economics, Commodities and Strategy Research
- Wilson, D., Kelston, A., Ahmed, S. (2010), *Is this the "BRICs Decade"?*, in BRICs Monthly, Goldman Sachs Global Economics, Commodities and Strategy Research, Issue No: 10/03, May 20
- Yamakawa, T., Ahmed, S., Kelston, A. (2009), *2010-2011: The World Bounces Back with BRICs*, in BRICs Monthly, Goldman Sachs Global Economics, Commodities and Strategy Research, Issue No: 09/10, December 22
- Zsoldos, I., Zadornova, A. (2008), *New EU Member States – a Fifth BRIC?*, in Global Economics Paper No: 173, GS Global Economics, Commodities and Strategy Research, September 26