



Global Economics Paper No: 66

Building Better Global Economic BRICs

- In 2001 and 2002, real GDP growth in large emerging market economies will exceed that of the G7.
- At end-2000, GDP in US\$ on a PPP basis in Brazil, Russia, India and China (BRIC) was about 23.3% of world GDP. On a current GDP basis, BRIC share of world GDP is 8%.
- Using current GDP, China's GDP is bigger than that of Italy.
- Over the next 10 years, the weight of the BRICs and especially China in world GDP will grow, raising important issues about the global economic impact of fiscal and monetary policy in the BRICs.
- In line with these prospects, world policymaking forums should be re-organised and in particular, the G7 should be adjusted to incorporate BRIC representatives.

Many thanks to David Blake, Paulo Leme, Binit Patel, Stephen Potter, David Walton and others in the Economics Department for their helpful suggestions.

Jim O'Neill
30th November 2001

Goldman Sachs Economic Research Group

In London

+44(0)20 7774 1160

Jim O'Neill, M.D. & Head of Global Economic Research
 Gavyn Davies, M.D. & Chief International Economist
 David Walton, M.D. & Chief European Economist
 Andrew Bevan, M.D. & Director of International Bond Economic Research
 Erik Nielsen, Director of New European Markets Economic Research
 Stephen Potter, E.D. & Senior Global Economist
 Al Breach, E.D. & International Economist
 Linda Britten, E.D. & Global Economics Mgr, Support & Systems
 Ben Broadbent, E.D. & Senior European Economist
 Michael Buchanan, E.D. & International Economist
 Francesco Garzarelli, E.D. & International Economist
 Stephen Hull, E.D. & International Economist
 Sandra Lawson, E.D. & International Economist
 Binit Patel, E.D. & International Economist
 Fabio Scacciavillani, E.D. & Senior European Economist
 Carlos Teixeira, E.D. & International Economist
 Javier Pérez de Azpillaga, European Economist
 Thomas Stolper, Associate Economist
 Philippa Knight, European Economics Manager, Admin and Support
 Fiona Lake, Research Assistant
 Ines Lopes, Research Assistant
 Victoria Malpass, Research Assistant
 Jocelyn McCafferty, Research Assistant
 Jens J Nordvig-Rasmussen, Research Assistant
 Roopa Purushothaman, Research Assistant
 AnnMarie Terry, Research Assistant

In New York

+1(212) 902 6807

William Dudley, M.D. & Chief US Economist
 Paulo Leme, M.D. & Director of Emerging Markets Economic Research
 Alberto Ades, M.D. & Director of Emerging Markets Bond & Currency Research
 Jan Hatzius, V.P. & Senior Economist
 Edward McKelvey, V.P. & Senior Economist
 John Youngdahl, V.P. & Senior Economist
 Federico Kaune, V.P. & Senior Economist
 Marcel Kasumovich, V.P. & International Economist
 Rumi Masih, V.P. & International Economist
 Daniel Tenengauzer, V.P. & International Economist
 Demian Reidel, Associate Economist (FI Research)
 Jesús Viejo, Associate Economist
 Melisse Dormier, US Economics Manager, Admin & Support
 Pablo Morra, Research Assistant
 Humberto Medina, Research Assistant
 Richard Crump, Research Assistant
 Lesya Karpa, Research Assistant

In Paris

+33(1) 4212 1343

Nicolas Sobczak, E.D. & Senior European Economist

In Frankfurt

+49(69) 7532 1200

Thomas Mayer, M.D. & Director of Euroland Economic Research
 Eva Frede, Research Assistant
 Dirk Schumacher, Research Assistant

In Toronto

+1(416) 343 8793

Mark Chandler, V.P. & Senior Economist
 Jason Daw, Research Assistant

In Hong Kong

+852 2978 1941

Sun Bae Kim, M.D. & Director of Asia Pacific Economic Research
 Fred Hu, M.D. & Head of Greater China Economics & Strategy
 John Anderson, V.P. & Senior International Economist
 Dominic Wilson, V.P. & International Economist
 Dick Li, Associate Economist
 Rita Ng, Research Assistant

In Tokyo

+81(3) 3589 8911

Tetsufumi Yamakawa, M.D. & Director of Japan Economic Research
 Yuriko Tanaka, V.P. & Associate Economist
 Takuji Okubo, Senior Economist
 Tomohiro Ohta, Associate Economist
 Ayako Sano, Research Assistant

In Singapore

+65 228 8478

Adam Le Mesurier, V.P. & Senior International Economist
 Enoch Fung, Research Assistant

Goldman Sachs Research personnel may be contacted by electronic mail through the Internet at firstname.lastname@gs.com

SUMMARY

Building Better Global Economic BRICs

This paper discusses the state of the world economy as we approach year-end, with particular emphasis on the relationship between the G7 and some of the larger emerging market economies.

We show that our latest forecasts for 2001 and 2002 suggest a healthier outlook in some of the larger emerging market economies compared to the G7. We are currently forecasting 1.7% world GDP growth in 2002 with Brazil, Russia, India and China (BRICs) each set to grow again by more than the G7.

Whilst the divergent degree of the 2001/2002 relative outlook is unlikely to be sustained over the next decade, a healthier environment for the BRICs seems likely to remain, and as a result, their share of world GDP is set to rise.

On a PPP basis, the aggregate size of the BRICs was about 23.3% of world GDP at the end of 2000, somewhat higher than both Euroland and Japan. Whilst on a current GDP basis, the size of the BRICs is just under 8%, this is also set to rise. Some of these countries are already bigger than some individual G7 economies; China, at 3.6% of world GDP (using current US\$ prices), was slightly bigger than Italy at the end of 2000, and notably larger than Canada.

We consider four different scenarios for the next decade based on various nominal GDP assumptions for 11 countries (the G7 and BRICs), and different assumptions about exchange-rate conversion. The nominal GDP assumptions reflect our best guess about the likely trend rate of real GDP growth and inflation.

In Scenario A, we simply convert future nominal GDP projections at end-2000 exchange rates.

In Scenario B, we convert GDP projections using our GSDEER/GSDEEMER fair value exchange rate estimates.

Scenario C again converts at end-2000 exchange rates, but assumes that the 2001/2002 nominal GDP paths continue for 10 years.

Scenario D converts projected GDP trends using PPP conversions rather than estimated end-2011 current US Dollars.

In all four scenarios, the relative weight of the BRICs rises from 8.0% at present (in current US\$) to 14.2%, or from 23.3% to 27.0%, converting at PPP rates. In each of these scenarios, the increasing weight is led by China, although the other three grow relative to the G7 countries also.

We also show our latest projections for likely timing of future EU joiners and subsequent membership of EMU. We suggest that there is a 50% or greater probability of another 13 countries becoming active members of EMU by the beginning of 2007, taking the total membership to 25 from today's 12.

We argue that with 25 members of EMU, it will be necessary to reform the 'active' membership of the ECB Governing Council and recommend instead the introduction of an 'FOMC-like' rotating voting mechanism.

Such a development should be accompanied by a reduction in Euroland representation at the G7 from 3 countries to 1, and provide the basis for a significant reform of the G7.

In view of the expected continued relative growth of the BRICs, the opportunity should be taken to incorporate China and probably Brazil and Russia and possibly India, expanding the key body of global economic policy co-ordination to 8 or 9.

It is time for the world to build better global economic BRICs.

INTRODUCTION: THE SIZE OF THE WORLD ECONOMY

Table 1 below shows the current size of GDP for the 20 leading economies of the world, based on both Purchasing Power Parity (PPP) and current prices at the end of 2000. The table also shows the actual share of world GDP on either estimate, and the difference between them, as well as the size of the population and GDP per capita.

As can be seen, there are some very different estimates about the **relative** size and share of the world economy depending on which technique (PPP weights or current GDP weights), is used. Perhaps not surprisingly, the actual absolute size does **not** differ much for most of the G7 countries, with the exception of Japan. Given Japan's expensiveness on a PPP basis, the PPP weighting suggests an economy less than 75% of its current GDP weighting.

The relative picture shifts dramatically when important emerging market economies are taken into account, particularly Brazil, Russia, India and China and to a lesser extent other Asian economies such as Indonesia. Table 2 highlights the difference for the four largest 'emerging economies' in both PPP and current prices.

As can be seen, for three of the four countries (China, India and Russia), their economies are more than

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	

Table 1: Size of the World

	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

three times bigger when using a PPP weighting rather than current GDP. Indeed on a PPP basis, China is the 2nd largest economy in the world, India the 4th largest and all four are bigger than Canada.

These estimates raise important issues about the transmission of global monetary, fiscal and other economic policies, as well as the need for general international economic and political co-operation (which events since September 11th have highlighted) on a **truly** global basis. Representation at global economic policy meetings might need to be significantly changed.

A simple comparison between China and Italy serves to illustrate the point. Even on a current GDP basis, the Chinese economy is slightly bigger than Italy, so an expansionary monetary or fiscal policy in China would be likely to have slightly more global impact than similar policies in Italy. This may be particularly relevant if an economic ‘shock’ such as the 1997/98 Asian Crisis affects the neighbouring region more than elsewhere.

Obviously if PPP weights are more representative than current GDP, China’s economy is about four times bigger than Italy’s, magnifying the relative impact of policy change.

If the G7 was to become a forum where true worldwide economic policy co-ordination was discussed, the US, Japan, Germany, France and the UK would be joined by China and India rather than Italy and Canada if PPP weights were the appropriate judge. The use of the PPP conversion methodology is both the GS and IMF preferred convention. Using current GDP methodology our current 2002 world GDP forecast of 1.7% would actually be closer to 1.0% . (see Appendix)

A further simple example can be seen from the impact on world GDP from China’s current strong real GDP growth performance.

We estimate that in 2002, real GDP in China will expand by 7%. If China’s weight in the world economy is 3.59%, then this contributes 0.25% to world growth. However, if China’s weight is 12.59%, as implied by PPP weights, China’s projected GDP will contribute 0.88% to world GDP growth, a significantly higher amount.

Table 3: 2001 Trade Weights for the US\$ Broad TWI

Country or Region	Federal Reserve Broad Trade Weighted Index
Euro area	17.1
Canada	17.2
Japan	13.2
Mexico	9.3
China	7.4
UK	4.6
Taiwan	3.7
Korea	4.1
Singapore	2.7
Hong Kong	2.6
Malaysia	2.3
Brazil	1.8
Switzerland	1.7
Thailand	1.6
Philippines	1.3
Australia	1.2
Indonesia	1.1
India	1.1
Israel	1.2
Saudi Arabia	0.8
Russia	0.8
Sweden	0.9
Argentina	0.6
Venezuela	0.5
Chile	0.5
Colombia	0.4
Total	100.0
MEMO	
<i>Euro-area countries</i>	
Germany	5.9
France	3.1
Italy	2.4
Netherlands	1.5
Belgium/Luxembourg	1.4
Ireland	1.0
Spain	0.8
Austria	0.4
Finland	0.3
Portugal	0.1
Greece	0.1
Total	17.1

Source: Federal Reserve

Not only is this ‘interesting’ but obviously highly relevant for financial market prices.

We do not really know the ‘right’ answer as to which method is right but will now go on to argue that looking at relative real GDP and inflation trends for the purposes of future global economic policy implementation, it may **not** matter. Whether you look at the future either in current US\$ or PPP terms, relative positions of key countries in the world economy are **changing**. We will now try to show that China especially deserves to be in the ‘G7 Club’, and under some scenarios, so do others—certainly Brazil, Russia and India relative to Canada.

WORLD TRADE SHARES

Data showing the share of each of the eleven countries in world trade shows similar results. As we have written about before, the broad modern trade-weighted measure of the US Dollar is highly interesting in this regard, with China now the **fourth** largest individual weighted country ahead of Germany (see table 3 on the previous page). Not only does this mean that competitive issues involving the CNY are more important than the (disappearing) Deutschmark, but arguably Chinese fiscal or monetary policy changes might be more important for the US than equivalent German policy changes (although the closeness of France and Italy and their responsiveness to German policy change would argue differently).

IMF data on country share of world exports and imports show a similar position. Without including data on re-exports from Hong Kong, China’s share of world exports and imports was about 3.9% and 3.4% respectively, comparable to those of Canada and Italy at the end of 2000. Including re-exports and imports through Hong Kong, China immediately becomes

the third largest trading nation, and given China’s entry into WTO, this is a relative position that can only **grow**.

We have estimated that China’s recent entry into the WTO will boost China’s foreign trade by US\$800bn per annum through 2005, and in the process this will allow **potential** GDP to rise to 7.5% above the level assumed in our earlier projections. Once more, the case for more **direct** inclusion of China in major global economic policymaking forums looks strong.

THE NEXT 10 YEARS

2001/2002

Table 4 below shows our latest real GDP and inflation forecasts for the current year and 2002. As can be seen, we expect very low GDP growth in most G7 countries (negative growth in the US and Japan) and low inflation (actual negative nominal GDP growth in Japan will persist). In contrast, we expect China’s relatively robust GDP growth and low inflation to persist, and notably stronger real GDP growth in Russia and India than the G7. Of the four ‘emerging’ countries under focus only Brazil is likely to experience weak ‘G7-style’ growth.

If the 2001/2002 outlook were to be repeated for the next 10 years, then by 2011 China will actually be as **big** as Germany on a current GDP basis, and Brazil and India not far behind Italy.

A repeat of the 2001/2002 outlook is highly unlikely over the next 10 years, but if China and the other three BRIC countries succeed in achieving fast growth and low inflation, then the relative GDP sizes may indeed be more like today’s PPP-determined numbers rather

Table 4: Real GDP Growth and CPI in the G7 and BRICs

% Change	Real GDP				CPI			
	1999	2000	2001	2002	1999	2000	2001	2002
US	4.1	4.1	1.0	-0.2	2.2	3.4	2.9	1.5
Euroland	2.6	3.4	1.6	0.6	1.1	2.3	2.6	1.3
UK	2.1	2.9	2.2	1.4	2.3	2.1	2.2	2.2
Canada	5.1	4.4	1.3	0.8	1.7	2.7	2.8	1.9
Japan	0.8	1.5	-0.7	-0.9	-0.3	-0.7	-0.7	-0.7
China	7.4	8.0	7.2	6.8	-1.4	-0.1	1.0	1.0
India	6.4	5.2	4.2	5.0	4.7	7.1	3.5	3.5
Brazil	0.8	4.2	1.4	2.0	8.9	6.0	6.8	4.8
Russia	5.4	8.3	5.5	4.0	36.5	20.2	18.0	12.0

Table 5: Share in World GDP (all in %)

Country	Current GDP		PPP		Scenarios							
					A		B		C		D	
USA	1	33.1	1	24.0	1	34.2	1	32.5	1	31.5	1	26.5
Japan	2	15.8	3	8.0	2	11.0	2	10.5	2	9.7	3	7.3
Germany	3	6.3	5	5.0	3	6.1	3	7.7	3	6.6	4	5.6
UK	4	4.7	7	3.4	5	4.6	5	4.8	5	5.2	8	3.6
France	5	4.3	6	3.5	6	4.2	4	5.3	6	4.5	6	3.9
China	6	3.6	2	12.6	4	5.6	5	4.8	3	6.6	2	16.1
Italy	7	3.6	8	3.4	7	3.5	7	4.4	7	3.8	7	3.8
Canada	8	2.3	11	2.2	10	2.4	9	2.3	10	2.1	10	2.5
Brazil	9	2.0	9	2.9	9	2.5	8	2.5	8	3.0	9	3.2
India	10	1.6	4	5.1	8	2.6	10	1.2	8	3.0	5	5.4
Russia	11	0.8	10	2.7	11	1.3	11	0.6	11	1.6	11	2.3

than the current GDP conversion.

PROJECTED AVERAGE 10-YEAR NOMINAL GDP

For the purposes of the next part of the analysis, table 6 shows the nominal GDP, real GDP and CPI inflation assumptions that we have made.

The assumptions have been derived from our best guess of the likely trend growth and inflation path over the next ten years. Based on these assumptions, we can show how the relative size of these countries may change. (It is worth noting that our Japanese projection might be regarded as too negative. **If** there were significant micro economic policy reform **and** some stronger clear efforts to halt deflation, these

projections might be too pessimistic).

Table 5 presents a series of alternative rankings and relative sizes based on different estimating ‘techniques’.

The four alternatives relate to different ways of estimating the size of GDP in the future using the nominal GDP and component assumptions listed earlier.

Scenario A simply extrapolates nominal GDP for the next 10 years on the very crude assumption that exchange rates will be the same level as at end-2000. The most interesting thing here is the rise in the relative position of China to the 5th largest economy. The combined weight of the BRICs rises to 12.0%.

Scenario B repeats the basic exercise of the previous scenario, but converts the local GDP into current (2011) US\$ using our long-term GSDEER and GSDEEMER values (readers should consult our various publications, including the September 2001 FX Book for a detailed explanation). This scenario raises the relative weighting of the Eurozone countries due to the strong undervaluation of the Euro according to our GSDEER model, but generally the results are no different to the current situation. The combined weight of the BRICs rises to 9.1% in this scenario.

Table 6: GDP and 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

Scenario C considers the scenario discussed earlier when the 2001/02 economic situation is repeated for the next decade, where relative nominal GDP growth is higher in the BRICs than the G7 countries. Not surprisingly, the relative ranking of **China** jumps sharply to **joint-third**, with Canada's drop to tenth perhaps the other interesting observation. In this scenario, the weight of the BRICs rises to 14.2%.

Scenario D considers nominal GDP growth adjusted for PPP developments, i.e. inflation differentials. Given our assumptions, once more China (not surprisingly), appears very large relative to some other countries, more than **twice** the size of Japan and larger than the **combined** size of France, Germany and Italy. This scenario results in a jump in the combined BRIC weight to 27.0%.

As can be seen in the four alternatives, **all** result in China's relative standing in the world GDP league tables considerably stronger than today.

In all four alternatives, the position of Brazil moves closer to that of Italy, whilst Russia (currently included in the G8 annual summit) remains eleventh in all except current GDP in US\$ converted at current PPP levels.

It would seem sensible with this environment set to emerge, coupled with the dramatic events of September 11th this year, that it might be an appropriate time for policymakers to 'regroup'.

WHO EXACTLY IS THE G7?

The Group of Seven (G7) emerged from the G5, itself an entity that seemed to emerge in April 1973 following a meeting between the then current Finance Ministers of the US, Germany and France—George P. Schultz, Helmut Schmidt and Valerie Giscard d'Estaing. This meeting, which took place soon after the breakdown of Bretton Woods and focused on the resulting international monetary crisis, laid the foundation for the Group of Five (G5). Soon after the addition of the UK, this group met informally, sometimes on the fringes of annual IMF meetings.

Two participants, Schmidt and d'Estaing, went on to become leaders of their countries, Germany and

France. They were eager to pursue direct contacts of a similar nature on a regular basis and according to Funabashi¹, the Helsinki Conference of July 1975 provided an occasion for them to pursue their G5 agenda. Soon after, on November 15-17th France hosted a summit at Rambouillet in France and they and Italy, Germany, the UK and US, together with Japan and Italy, discussed a range of economic and political issues.

The regular annual Heads of Summit from then on took place on a G7 basis, with Canada being included.

Typically, the Finance Ministers of the G5 (excluding Italy and Canada) met separately. G5 meetings usually took place in a somewhat secretive atmosphere, although their subjects and style was often prompted by world economic circumstances. Perhaps its most famous act of influence on the world financial stage was the 'Plaza Accord' of September 1985, at which they agreed to deliberately weaken the value of the Dollar.

The G7 as a forum for Finance Ministers really emerged in 1986/87 on the back of initiatives by James Baker and Richard Darman of the US Treasury, following their discontentment with the secretive nature of the G5 and a desire to have regular meetings of Finance Ministers parallel to meetings of the Heads of State of the seven major economies. Italian discontentment with being excluded from the Plaza Accord was seen as a valid excuse by Baker and Darman to broaden the group and as a way of developing a more formal, publicly aware, regular meeting of Finance Ministers where they could collectively review their individual economic objectives and forecasts, and discuss their mutual compatibility. Initially planned as just a forum for the G7 Finance Ministers, the French, (encouraged by the EC) objected to absence of EC participation. After much haggling, the EC was 'admitted' effectively representing another set of European countries (which now includes another 11 countries in addition to the big 4). It did not take a long time to figure out that to have an effective policy forum, it would be critical to include central bank leaders and their deputies who would actually implement much of what was desired by the Finance Ministers,

1 Y. Funabashi: Managing the Dollar: From the Plaza to the Louvre. Institute for International Economics 1988.

especially if it were to involve ‘secretive’ FX intervention. The actual membership of the ‘club’ quickly rose, and with the addition of the IMF Head and the President of the ECB following the start of EMU in January 1999, the G7 club expanded also. The regular two-to-four, sometimes five meetings have become a feature of the annual economic calendar and of course, frequently the financial markets await their communiqués with anticipation.

In view of analysis earlier, the question now becomes: does the G7 need an update?

To help further demonstrate what we think is a pretty straightforward answer YES, let us first add into the equation, our latest assessment of the future EMU membership.

EMU MEMBERSHIP GOING FORWARD

Table 7 shows our latest assessment of future EMU membership and participation in the Euro. As can be seen, we think that there is a 50% or greater probability that another 13 countries will join EMU by January 2007. This would mean that the size of membership would swell to 25 countries.

For a number of reasons, the likelihood of increased EMU membership **adds** to the case for reform of the G7.

Firstly, the ECB and ECOFIN meetings, the EU forum for monetary policy decisions and the gathering of Finance Ministers will become so large that effective decision making will become almost impossible. Certainly, at a minimum more difficult. Some significant reform, possibly along the lines of the FOMC-rotating style, will be necessary at the ECB with Governors of some of the central banks taking turns at being ‘official’ decision makers. A parallel global representative change would seem opportune.

Secondly, Germany, France and Italy make up about 78% of the Euroland economy. As other countries join, the weight of the Big 3 will decline somewhat. Given that they will all share a single currency and a single monetary policy, why should Germany, France and Italy be represented at the G7 at the exclusion of the other 22%?

Thirdly, a strong case could be made that the

Table 7: EU Enlargement Probabilities

	Conclude Negotiations End 2002	EU Entry Jan 1, 2005	EMU by Jan 1, 2007
Tier 1:			
Czech Rep	90%	75%	60%
Estonia	90%	75%	70%
Hungary	90%	75%	70%
Poland	80%	70%	60%
Slovenia	90%	75%	60%
Tier 2:			
Slovakia	75%	65%	50%
Latvia	75%	65%	60%
Lithuania	75%	65%	60%
Tier 3:			
Bulgaria	10%	5%	5%
Romania	0%	0%	0%
Tier 4:			
Cyprus	90%	70%	50%
Malta	90%	70%	50%
Tier 5:			
Turkey	0%	0%	0%
Not yet a candidate country:			
Croatia	0%	0%	0%
Western European Countries			
Denmark*			50%
Norway		10%	10%
Sweden*			50%
Switzerland		10%	10%
UK*			50%

*Countries already members but have yet to adopt the single currency. Source Goldman Sachs

existence of so many national representatives even **now** at ECB and ECOFIN meetings tend to result in decision making that is motivated by self rather than collective interest, and as no doubt the six permanent ECB board members would argue, the collective interests are best served by those that think ‘pan-European’.

Of course, some critics have argued that the Euroland policymaking forum suffers from both too many participants and as well as a lack of continuity, and so to have a rotating European representative at the G7 for both the ECB and ECOFIN would not be ideal. Instead, if a single representative from ECOFIN and the ECB President represented Euroland at the G7, this would probably result in a more effective Euroland ‘voice’.

WHAT HAVE THE G7 DONE?

As we mentioned earlier, the G7 agenda in 1986/87 was designed by James Baker and Richard Darman as

a forum where Finance Ministers would collectively review their individual objectives and their mutual compatibility.

In those heady days, as Funabashi discusses, the so-called Louvre Accord was the strongest example of active policy co-ordination where the G7 attempted to manage exchange rates in a narrow range against each other. Whilst the difficulties involved in active co-ordination of monetary and fiscal policy meant that the Louvre ‘experiment’ lasted less than six months, there was a period in the late 1980s where the G7 Finance Ministers tried to use their meetings as an attempt to co-ordinate policies more actively than in modern times.

There have been other periods since the late 1980’s where the G7 has actively co-ordinated policies, notably FX management, with the policy induced strengthening of the Dollar in 1995 a good example. Maybe the intervention to support the Euro in September 2000 represents possibly another (small) example.

However, for much of the last few years, the G7 has seemed more of an information gathering point and has generally refrained from any active influence over world events and markets. At least that is the impression by many market participants.

There may be good reason as to why this has been the case.

For most of the 1990s especially since the ERM crisis of 1992/93, the Europeans have been focused heavily on the introduction of EMU and since 1999, on establishing its success. In addition, as we argue below, various shocks to the world economy have appeared from **outside** the G7, making a co-ordinated policy response from those **inside** difficult.

SHOULD THE G7 BE REPLACED BY A G9?

Following on from the above, it seems quite clear that the current G7 needs to be ‘upgraded’ and room made for the BRICs in order to allow more effective global policymaking.

By reducing European representation to that of the UK and a Euroland representative (only one if the UK joins EMU, reducing the need for another

participant), the G7 could be slimmed back down to a G5.

Looking at each of Brazil, Russia, India and China, the case for the inclusion of **China** is overwhelming. The case for the other three is less clear-cut, but in many of our scenarios for the future makeup of the world economy, the case for the inclusion of **all** three is at least as strong as Canada, and in some ways, as strong as Italy.

It seems quite easy to conclude that the current G7 should be reformed to become possibly a G9, which would allow global policy making to be more effective.

WOULD THE BRICs WANT TO BE IN?

A number of observers might wonder (in addition to questioning whether a G9 would be more ‘effective’ than a G7), whether the BRICs would actually want to be in a G9 ‘club’.

Clearly, the four countries under consideration are very different economically, socially and politically, and incorporating all four of them into a G7 style club might not be straightforward, (although the existing G20 meetings are arguably an extended club version of this proposal) and as we have discussed already, the case based on economic criteria is strongest for China, and less for the others.

WOULD EACH OF THE FOUR BE INTERESTED?

Russia would perhaps be the most likely, not least as they are now already a regular participant of the Annual Heads of State Summit (now G8 which is the G7 plus Russia). Their presence might also be valuable due to their role as a major oil producer in addition to other attractions.

Brazil would perhaps be the next most ‘accepting’ given its large economic size in Latin America and its closer social and stylistic ties to Europe and the US.

(At the last moment, we have considered that given Mexico’s potential growth trend being superior to that of Brazil, it might be that in ten years, Mexican GDP is of a similar size to Brazil. No doubt this could result in some discussion about their relevant role.)

China might not be that eager. Despite their enormous economic progress, their social ‘model’ is still extremely different to the G7 countries. Of course with Chinese capital markets not very developed yet, China might not appreciate regular G7 type ‘advice’. However, China’s inclusion is probably the most important given the earlier arguments and they should be encouraged to participate. Perhaps also the other members would need to recognise that not all member countries need to be the “same”.

India would almost definitely be the least eager to join the G9 club. They might regard any ‘obligations’ as unwelcome, as well as possibly seeing their own experiences as limiting their ability to give ‘advice’. However, in view of their size, population and potential (and their geographical location), the possible inclusion of India would be attractive.

WHAT WOULD THE G9 DO?

Just as the G7 Finance Ministers and central bank Governors currently discuss the world economy and policy co-ordination, the G9 would do the same.

What more could that actually achieve?

Most of the world’s economic disturbances since the late 1990’s and its biggest changes have largely involved countries **outside** the G7 (with the exception of the technology driven downturn in the US in 2000-2001). The involvement of those with stronger locally informed knowledge and their more informed consideration of the issues may have helped make the resulting fallout less painful or may be even avoided altogether.

Whilst the 1998 Russian crisis associated with the LTCM collapse might not have been avoided, involvement of China in the ‘club’ might have resulted in greater awareness of the building economic pressures that led to the Asian crisis. Certainly a single European voice at the G7 instead of those from different large European countries would allow a ‘European Voice’ to be heard on many occasions.

Going into 2001, two interesting test cases exist. One concerns the ongoing remarkable strength of the US Dollar, which for many emerging market countries

could be a big challenge. In particular, its strength is challenging the viability of the US Dollar-based currency board in Argentina. The direct involvement of Brazil in the ‘G7 club’ and their discussions about major exchange rates could strengthen the case for global policy action to strengthen the Euro. Similarly, direct Chinese involvement would broaden any debate about the appropriate policy response with respect to Japan’s problems and the management of the Yen.

Both these issues would seem to suggest to the truly global economics analyst that there is an extremely strong case for a policy-induced strengthening of the Euro/Yen rate exchange rate. Maybe we need a better global economic forum to help implement this.

It is time for better global economic BRICs.

Jim O’Neill

Appendix

WHICH IS RIGHT, PPP OR CURRENT GDP WEIGHTING?

According to the IMF, the conversion factors used to convert data expressed in national currencies into a common numeraire currency should reflect each currency's purchasing power relative to the numeraire currency (See Gukde and Schulze-Ghattas: Purchasing Power Parity based weights for the World Economic Outlook. Staff studies for the World Economic Outlook 1993. chapter VI).

This **is** the accepted practice adopted at GS. As the IMF paper points out, if market exchange rates diverge substantially and for extended periods from PPPs, conversion at **market** exchange rates may yield biased GDP weights, and hence biased indicators of aggregate economic activity in groups of countries.

In practice, GDP expressed in national currencies are usually converted at market exchange rates, and such conversions maybe acceptable as long as differences between market exchange rates and PPPs are small and stable.

Two examples serve to highlight this dilemma, but don't offer much in the way of an obvious solution. Consider the US and Japan. Because the Yen is 'expensive' on a PPP basis, Japan's economy is reported as **bigger** on a relative basis in US\$ terms when quoted in current US\$ compared to a relative basis quoted in PPP terms. Which is right? If it were accepted that comparison should be made in current US\$, what about an environment where the Yen weakened by 25% in one year's time (as many observers expect). Such a FX move might actually help to strengthen the Japanese economy, but the size of the economy would appear to be 25% lower in US\$ than today.

On a PPP basis, this problem would not occur.

For the second example, let's take China and Japan, a very topical issue and a key issue in this paper. On a current GDP basis, the Japanese economy is about four times bigger than China, whereas on a PPP basis, the Chinese economy is more than 50% bigger than Japan. Which is right? Does it matter? For other countries and their population, and the more 'open'

their economies, trying to judge the impact of policy change on their economy is obviously going to differ depending on the true size. For example, does a 2% of GDP change in Chinese fiscal policy matter more than a 2% of GDP change in Japanese fiscal policy for Korea, Thailand, or other Asian countries? A difficult question to answer, although most would probably choose Japan as the more important. This might not be correct.

Recent Global Economics Papers

Paper	Title	Date	Author
65	Transatlantic Differences in Merger Policy: Not Such a Big Deal	26-Oct-01	David Walton
64	The Next Wave of EU Enlargement: Opportunities in Convergence	18-Oct-01	Erik F. Nielsen & Jens J. Nordvig-Rasmussen
63	Japan NPL Disposal: Opening a Pandora's Box?	10-Oct-01	Tetsufumi Yamakawa, Takuji Okubo, Gavyn Davies
62	U.S. Investment Boom Goes Bust	30-May-01	William C. Dudley and Jan Hatzius
61	Das Kapital: Capital Markets Are Transforming China	18-May-01	Fred Hu
60	Rising Recession Probabilities in America and Japan	20-Mar-01	Gavyn Davies
59	The George W. Bush Administration: Policies, Priorities, and Personnel	03-Oct-00	William C. Dudley, Edward McKelvey, John Youngdahl
58	South Africa: Inflation Target: Well Within Reach	09-Nov-00	Carlos Teixeira, Rumi Masih
57	Germany's Economic Revival: The Role of Capital Markets	13-Oct-00	Thomas Mayer
56	Bush versus Gore: A Budget Referendum	06-Oct-00	William C. Dudley, Edward F. McKelvey, Joan Woodward and John Youngdahl
55	Consequences of an ANZAC Currency Union	04-Oct-00	Dominic Wilson
54	Russia: An Anatomy of Adolescent Capitalism	03-Oct-00	Al Breach
53	Oil Still Has the Power to Shock	20-Sep-00	Gavyn Davies and Steven Strongin
52	Mexico: Prospects and Challenges for the Fox Administration	16-Aug-00	Paulo Leme, Alain Féler and Jesús Viejo
51	Bush versus Gore: A Budget Referendum	03-Aug-00	William C. Dudley, Edward McKelvey Joan Woodward, John Youngdahl
50	Australian Productivity: Catching A'New Economy' Wave	24-Jul-00	Dominic Wilson
49	Is the Internet Better Than Electricity?	20-Jul-00	Martin Brookes and Zaki Wahhaj
48	Implications of a Disappearing Treasury Debt Market	10-Jul-00	John Youngdahl, Brad Stone and Hayley Boesky
47	Asset Prices and the Conduct of Monetary Policy in the "New" UK Economy	10-Jul-00	Ben Broadbent & David Walton
46	Mexico: No Tequila in Sight	16-Jun-00	Alain Féler, Jesús Viejo, Rumi Masih, and Paulo Leme

Goldman Sachs Global Research Centres

New York

Goldman Sachs & Co.
1 New York Plaza, 47th Floor
New York, New York 1000, USA
Tel: +1(212) 902 1000
Fax: +1(212) 902 2145

Paris

Goldman Sachs Inc et Cie
2, rue de Thann
75017 Paris, France
Tel: +33(1) 4212 1341
Fax: +33(1) 4212 1499

Frankfurt

Goldman Sachs & Co. oHG
MesseTurm
D-60308 Frankfurt am Main,
Germany
Tel: +49(69) 7532 1000
Fax: +49(69) 7532 2800

Singapore

Goldman Sachs (Singapore) Pte.
1 Raffles Place, #07-01 South Lobby,
Singapore 039393
Tel: +65 228 8128
Fax: +65 228 8474

London

Goldman Sachs International
Peterborough Court
133 Fleet Street
London, EC4A 2BB, England
Tel: +44(0)20 7774 1000
Fax: +44(0)20 7774 1181

Hong Kong

Goldman Sachs (Asia) L.L.C.
Cheung Kong Center,
68th Floor
2 Queen's Road Central
Hong Kong
Tel: +852 2978 0300
Fax: +852 2978 0479

Tokyo

Goldman Sachs (Japan) Ltd.
ARK Mori Building, 10th Floor
12-32, Akasaka 1-chome
Minato-ku, Tokyo 107, Japan
Tel: +81(3) 3589 7000
Fax: +81(3) 3587 9263

Korea

Goldman Sachs & Co.
Dong Ah Life Insurance Building
33 Da-Dong, Chung-Ku
Seoul, South Korea
Tel: +82(2) 3788 1000
Fax: +82(2) 3788 1001

Goldman Sachs Research personnel may be contacted by electronic mail through the Internet at firstname.lastname@gs.com

©2001 Goldman, Sachs & Co. All rights reserved.

This report is not to be construed as an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. We are not soliciting any action based upon this material. This material is for the general information of clients of Goldman Sachs. It does not take into account the particular investment objectives, financial situation or needs of individual clients. Before acting on any advice or recommendation in this material, a client should consider whether it is suitable for their particular circumstances and, if necessary, seek professional advice. Certain transactions, including those involving futures, options, and high yield securities, give rise to substantial risk and are not suitable for all investors. The material is based upon information that we consider reliable, but we do not represent that it is accurate or complete, and it should not be relied upon as such. Opinions expressed are our current opinions as of the date appearing on this material only. While we endeavor to update on a reasonable basis the information discussed in this material, there may be regulatory, compliance, or other reasons that prevent us from doing so. We and our affiliates, officers, directors, and employees, including persons involved in the preparation or issuance of this material may, from time to time, have long or short positions in, and buy or sell, the securities, or derivatives (including options) thereof, of companies mentioned herein. No part of this material may be (i) copied, photocopied or duplicated in any form by any means or (ii) redistributed without Goldman, Sachs & Co.'s prior written consent.

This material has been issued by Goldman, Sachs & Co. and/or one of its affiliates and has been approved by Goldman Sachs International, which is regulated by The Securities and Futures Authority, in connection with its distribution in the United Kingdom and by Goldman Sachs Canada in connection with its distribution in Canada. This material is distributed in Hong Kong by Goldman Sachs (Asia) L.L.C., in Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch, in Japan by Goldman Sachs (Japan) Ltd., in Australia by Goldman Sachs Australia Pty Limited (ACN 092 589 770), and in Singapore through Goldman Sachs (Singapore) Pte. This material is not for distribution in the United Kingdom to private customers, as that term is defined under the rules of The Securities and Futures Authority; and any investments, including any convertible bonds or derivatives, mentioned in this material will not be made available by us to any such private customer. Goldman Sachs International and its non-U.S. affiliates may, to the extent permitted under applicable law, have acted upon or used this research, to the extent it relates to non-U.S. issuers, prior to or immediately following its publication. Foreign-currency-denominated securities are subject to fluctuations in exchange rates that could have an adverse effect on the value or price of, or income derived from, the investment. In addition, investors in securities such as ADRs, the values of which are influenced by foreign currencies, effectively assume currency risk. NR (Not Rated): The Investment Rating and Target Price, if any, have been suspended temporarily. Such suspension is in compliance with applicable regulation(s) and/or Goldman Sachs policies in circumstances where Goldman Sachs is acting in an advisory capacity in a merger or strategic transaction involving this company and in certain other circumstances.

Further information on any of the securities mentioned in this material may be obtained upon request, and for this purpose persons in Italy should contact Goldman Sachs S.I.M. S.p.A. in Milan, or at its London branch office at 133 Fleet Street, persons in Hong Kong should contact Goldman Sachs (Asia) L.L.C. at 2 Queen's Road Central, and persons in Australia should contact Goldman Sachs Australia Pty Limited. Unless governing law permits otherwise, you must contact a Goldman Sachs entity in your home jurisdiction if you want to use our services in effecting a transaction in the securities mentioned in this material.
