

# COMMODITIES AND RAPID GROWTH MARKETS: JOINED AT THE HIP?

## **IEMS EMERGING MARKET BRIEF**

SKOLKOVO Business School - Ernst & Young  
Institute for Emerging Market Studies (IEMS)  
Vol. 12-06, November 2012



Author:  
Dr. William T. Wilson, Senior Research Fellow

Editor-in-Chief:  
Dr. Seung Ho "Sam" Park, Executive Director

# Contents

I. Introduction	2
II. Commodities: The Booms and the Busts	4
III. Commodity Dependence and Growth: Some Evidence	8
IV. The Developing World: Who Is Commodity Dependent?	14
V. Long-term demand prospects	20
VI. Conclusion	24

# I. Introduction

Rapid Growth Markets (RGMs)<sup>1</sup> and commodities<sup>2</sup> have become almost synonymous in recent years. Insatiable demand during the last decade for energy, precious metals and minerals, and agricultural products from the emerging world helped propel the greatest gains in commodity prices in perhaps a century. Meanwhile, the crash in commodity prices during the Great Recession reaffirmed the long-standing pattern of boom and bust.

There are two widespread core beliefs about commodities and emerging markets. First, emerging markets, by and large, are large net exporters of commodities and thus are major beneficiaries of commodity booms, at least over the short run. Many emerging market countries witnessed enormous increases in their commodity trade balances in the last decade, helping to boost economic growth across a large number of emerging economies. The price shock of the last decade has raised important questions about the sensitivity of emerging market economies to movements in commodity prices.

Second is the belief that one of the primary reasons emerging markets are poor in the first place is that they are “cursed” in many respects because of their resource endowment. Commodities are widely believed to have a debilitating impact on economic development over the long run for many developing countries. The more commodity-intensive producing economies, for example, are clearly more corrupt.

While there’s certainly more than a grain of truth in these beliefs, this paper finds that the relationship between commodities and emerging markets may be a lot less straightforward than is generally assumed. In this paper, we will explore this nuanced relationship from multiple perspectives in an attempt to separate truth from stereotype.

The price shock of the last decade has raised important questions about the sensitivity of emerging market economies to movements in commodity prices

1/ While this paper will focus primarily on Ernst & Young’s 25 RGMs, we will also extend our research to all emerging markets.

2/ In the paper, we reference only physical commodities, which are comprised largely of agricultural goods, metals, minerals, and energy.

# II. Commodities: The Booms and the Busts



The most singular characteristic of the commodity markets has been its ongoing cycles of “booms and busts.” The first boom of the last century (see Table 1) coincided with the First World War, while the primary causes of the three booms in the post World War II era were post-war rebuilding and strong global growth (1950–1957), heightening geopolitical tensions

(in the Middle East and in Vietnam) and a major oil shock (1973–1974), and buoyant demand from the emerging world and the war in Iraq (2003–2008). All major price booms have always been followed by a bust as higher prices led to demand destruction while the market volumes of commodities eventually expanded. The most recent 2008–2009 commodity price

**Table 1. Principal Characteristics of Major Commodity Booms**

Common features	1915–1917	1950–1957	1973–1974	2003–2008
Rapid global real growth (average annual percent)	—	4.8	4	3.5
Major conflict and geopolitical uncertainty	World War I	Korean War	Yom Kippur War, Vietnam War	Iraq conflict
Inflation	Widespread	Limited	Widespread	Limited second round effects
Period of significant infrastructure investment	World War I	Postwar in Europe and Japan rebuilding	Not a period of significant investment	Rapid buildup of infrastructure in China
Centered on which major commodity groups	Metals, agriculture	Metals, agriculture	Oil, agriculture	Oil, metals, agriculture
Initial rise observed in prices of	Metals, agriculture	Metals	Oil	Oil
Preceded by extended period of low prices or investment	No	World War II destroyed much capacity	Low prices and a supply shock	Extended period of low prices
Percent increase in prices (previous trough to peak)	34	47	59	131
Years of rising prices prior to peak	4	3	2	5
Years of declining prices prior to trough	4	11	19	—

Source: World Bank. (2009). The Commodity Boom and Long-Term Prospects. p. 55.

- = Not available

bust, directly a result of the collapse in global economic activity, was no exception.

### The 2003–2008 Price Shock in Focus

The 2003–2008 commodity price shock was perhaps the greatest of the century and fundamentally helped reshape much of the emerging world. It stands out by the magnitude and duration of the price increases and by the correlation and volatility of prices.

In magnitude, the 2003–2008 commodity price increases were among the greatest of the past century, wiping out the real price declines experienced during at least the previous four decades. The inflation-adjusted U.S. dollar price of commodities increased by approximately 110% from 2003 to 2008, or 130% since its earlier cyclical low in 1999. By contrast, the real price increase during previous price booms never exceeded 60%.

The 2003–2008 price increase was also unusually long in its duration. The U.S. dollar price of internationally traded commodities continued to rise over the course of more than five years, much longer than the price booms of

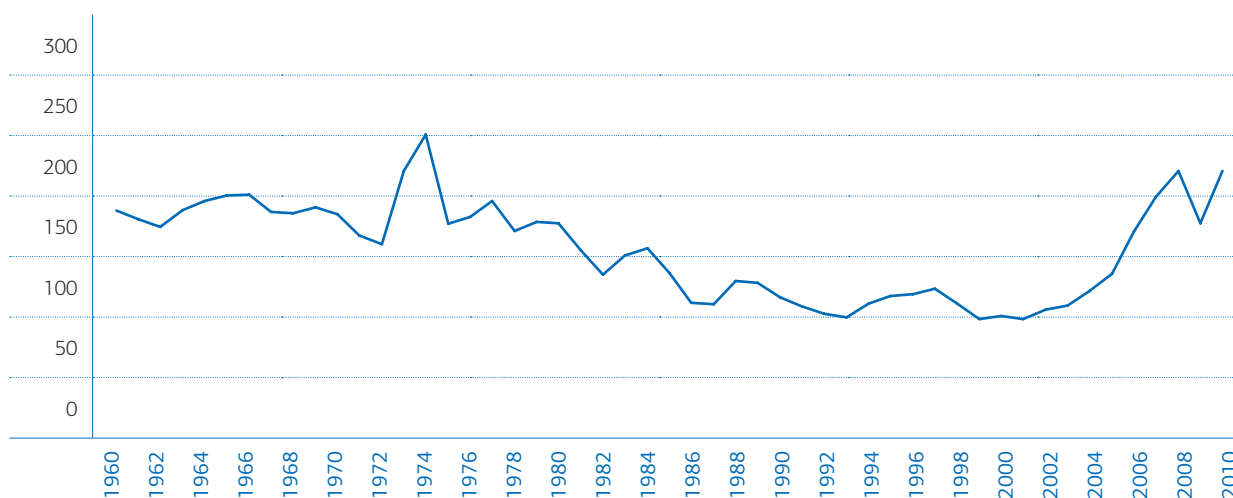
The 2003–2008 commodity price shock was perhaps the greatest of the century and fundamentally helped reshape much of the emerging world

the 1950s and 1970s. Only the 1917 boom saw a sustained increase in commodity prices over a similarly long period (4 years). After losing much of the 2003–2008 gains, commodity prices crashed before recovering in late 2009.

Commodity inflation over the past decade was most acute in energy and in metals and minerals. Between early 2003 and mid-2008, for example, oil prices climbed by 330% in dollar terms, with metals and minerals making similar advances. The real price of agricultural products was broadly stable, especially in the developing countries early on, but then rose sharply from 2007 to 2008 (from 2006 to 2008, global food prices doubled).

The correlation of price movements across all major commodity classes was also a distinc-

**Figure 1. Real Global Commodity Prices (Inflation-adjusted, 2000=100)**

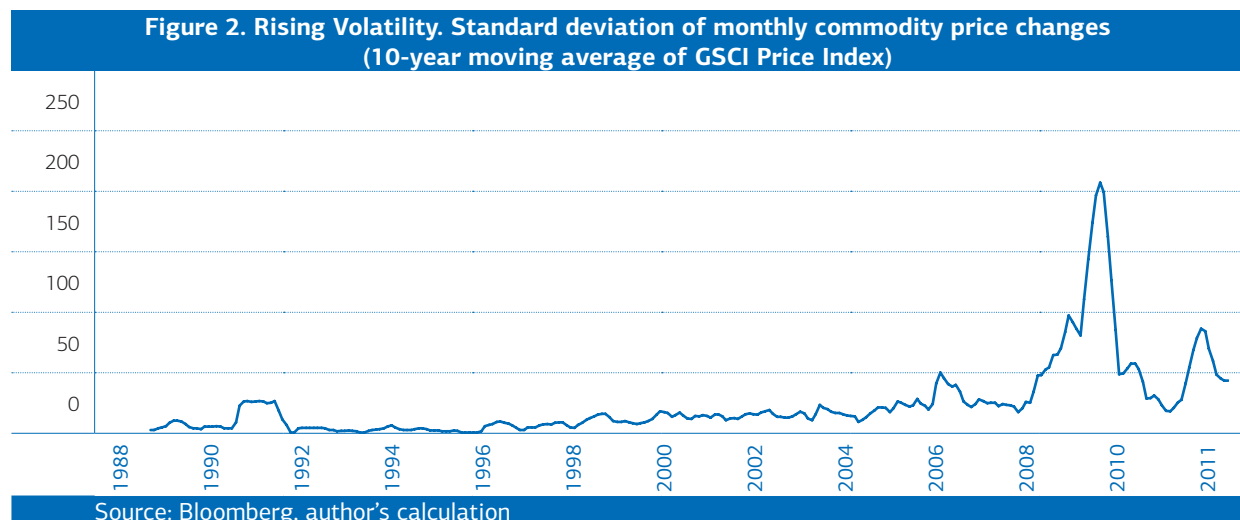


Source: World Bank, author's calculations.



tive characteristic of the past cycle. Historically, high energy prices tend to dampen industrial production and demand for industrial metals and minerals, but their price correlation in the last decade was exceptionally strong (relative to previous decades).

The last distinctive characteristic of the 2003–2008 boom was the enormous increase in commodity price volatility. While commodity prices have traditionally exhibited strong price volatility, the rise during the last decade was breathtaking. This volatility (measured by the monthly standard deviation in the GSCI Price Index) grew fourfold, on average, from the 1990s to the 2000s (including 2011). As we shall discuss, the impact of this increased volatility has the potential to be problematic for developing nations that are primary commodity producers.



# III.

## Commodity Dependence and Growth: Some Evidence

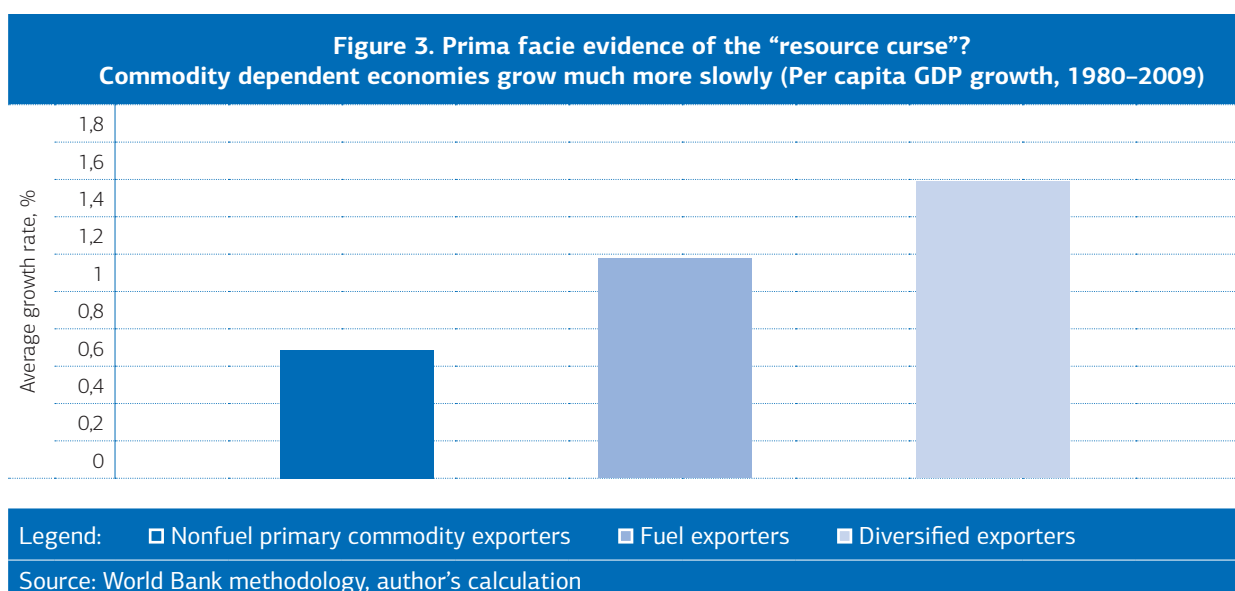
While commodity booms are often accompanied by a temporary lift in economic growth, economic dependency on commodities has generally been associated with slow growth and economic development over the longer term. This so-called resource curse, which has been thoroughly explored in the academic literature,<sup>3</sup> is thought to work through a number of important channels. One is a tendency for the commodity boom-bust cycle to accentuate both changes in government spending and economic cycles, which can act to discourage long-run economic development.

Another is a tendency toward exchange rate appreciations associated with commodity booms (the so-called “Dutch disease”) to weaken the competitiveness of the non-commodity sectors of the economy. For example, there is ample evidence that the rapid appreciation of the Brazilian real in recent years has significantly impacted the country’s tradable goods sector.

Last, but perhaps most important, is a tendency for countries enjoying high commodity revenues to waste their windfalls and not invest them in wealth-generating investments or activities. Commodity endowments are well known to lead to “rent-seeking” behavior and corruption.

An initial glance at the numbers would seem to overwhelmingly support the notion of the resource curse. Employing a methodology similar to that of the World Bank,<sup>4</sup> the entire developing world may be divided into three distinct categories: The first group comprises countries that derived more than 70% of their export revenues from nonfuel primary commodities in 1980; the second group is primarily made up of “fuel exporters”; and all of the remaining countries are classified as “diversified” exporters. That is, neither commodities nor fuels represented a significant share of their exports.

There are significant differences in the growth rates seen in these categories over the past three decades. The nonfuel primary commodity exporters increased their per capita GDP by an average of only 0.5% a year between 1980 and 2009. The fuel-exporting countries raised their per capita GDP by 1.2% a year, while the more diversified exporters achieved considerably faster growth of 1.7%. Over such a long time period encompassing so many countries, this would seemingly be strong evidence of a resource curse, particularly for the nonfuel commodity dependent cohort.



3/ For an excellent review, see “The Political Economy of the Resource Curse: A Literature Survey,” Andrew Rosser, 2007. Institute for Development Studies.

4/ The Commodity Boom and Long-Term Prospects, 2009, p. 98.

Moreover, the more affluent a country is, the less likely it is to be dependent on nonfuel commodity exports. In 2009, approximately one-third of exports for high-income developing countries were from nonfuel commodities, compared to two-thirds of exports for low-income countries.

### But Is the Story Really That Simple?

The seemingly clear evidence of the resource curse, however, seems to be contradicted by much of what we experienced during the past decade. All said and done, rising commodity prices seemed to have been a significant net benefactor to the emerging market economies in the last decade. The precipitous rise in most of the key export commodities of these emerging markets drove enormous improvements for many in their **terms of trade**.<sup>5</sup> Table 3 provides a sample of the terms of trade for many of the larger RGMs at year-end 2010.

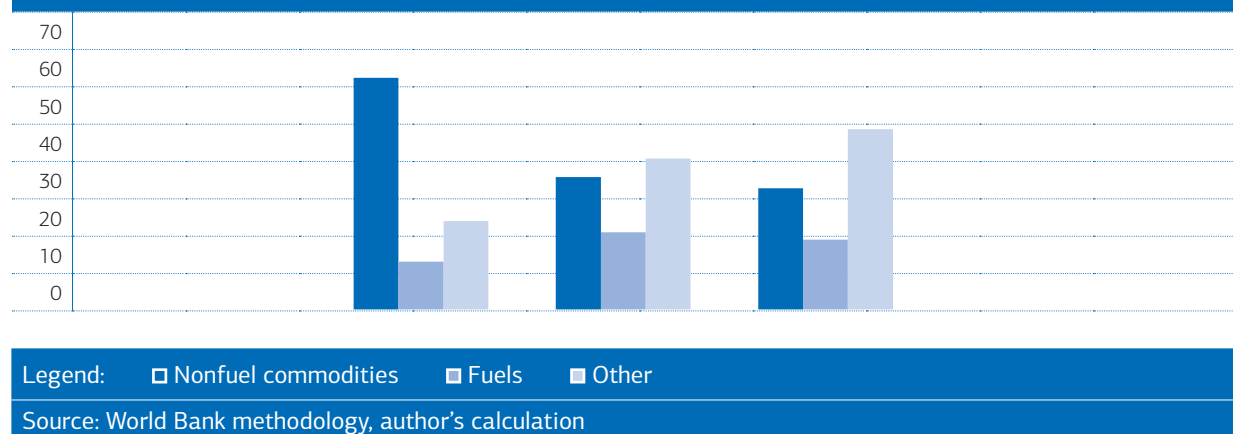
Not surprisingly, the big oil exporters were the biggest beneficiaries during the last decade, with many witnessing a doubling in their terms of trade.

Chile experienced the largest shift in terms of trade among the non-oil producers, thanks to commodity exports comprising 80% of total merchandise exports. On the back of higher precious metal (mineral) prices, South Africa and Peru also saw big gains. Agricultural export powers like Brazil and Argentina may not have seen terms of trade gains of similar magnitude, but a steady rise in food staple prices bolstered their economic performance in the last decade. India was the only RGM to experience a significant improvement in its terms of trade despite being a large net importer of commodities.

Since approximately a third of the large RGMs are net commodity importers, they witness deterioration in their terms of trade. A huge

All said and done, rising commodity prices seemed to have been a significant net benefactor to the emerging market economies in the last decade

**Figure 4. Poor countries are more dependent on nonfuel primary commodities (Share of merchandise export revenues, 2009)**



5/ The terms of trade are a country's price of its exports divided by the price of its imports. An improvement in a nation's terms of trade (an increase in the ratio) is considered healthy because a nation can buy more imports for any given level of exports.

**Table 2. Getting More from Your Exports (Terms of trade, 2010, 2000 = 100)**

Country Name	net barter terms of trade (2000=100)
Saudi Arabia	224
Venezuela, RB	216
Chile	204
Russian Federation	202
Kuwait	191
Nigeria	187
Algeria	182
Peru	152
South Africa	141
Colombia	134
India	127
Indonesia	127
Argentina	127
Brazil	125
Ukraine	119
Mexico	104
Malaysia	101
Poland	100
Romania	99
Thailand	98
Hungary	95
Turkey	92
China	76
Philippines	70
Pakistan	62

Source: Bloomberg, author's calculation

net importer of commodities, China's terms of trade fell 25% (commodities comprise only 10% of total merchandise exports but 90% of imports). Pakistan, despite clocking in a respectable decade of economic growth, experienced the most pronounced deterioration in its terms of trade.

The improvement in their terms of trade drove significant improvements in their economic growth and living standards over this period. The 14 large commodity exporters list-

ed in Table 3 almost quadrupled their collective GDPs over this period, increasing it from 27% of U.S. GDP in 2003 to 56% by 2010. As recently as 2003, Russia, Brazil, South Africa and Argentina all had per capita incomes only in the \$3,000–4,000 range. Nigeria may still be very poor, but an almost doubling in its terms of trade helped its per capita income more than double. Per capita income almost tripled in Indonesia and Malaysia over the same period.

**Table 3. Where's the Curse? Per capita GDP by country)**

Country	GDP per capita	
	2003	2010
Saudi Arabia	9,607	15,836
Nigeria	508	1,222
Algeria	2,131	4,495
Chile	4,636	11,888
Russian Federation	2,976	10,440
Venezuela	3,257	13,451
Peru	2,279	5,291
Argentina	3,410	9,124
Malaysia	4,398	8,373
Colombia	2,274	6,225
Indonesia	1,058	2,946
South Africa	3,648	7,275
Brazil	3,042	10,710
Mexico	6,740	9,166

Source: WDI

### Resource dependency reflects low GDP, not resource wealth

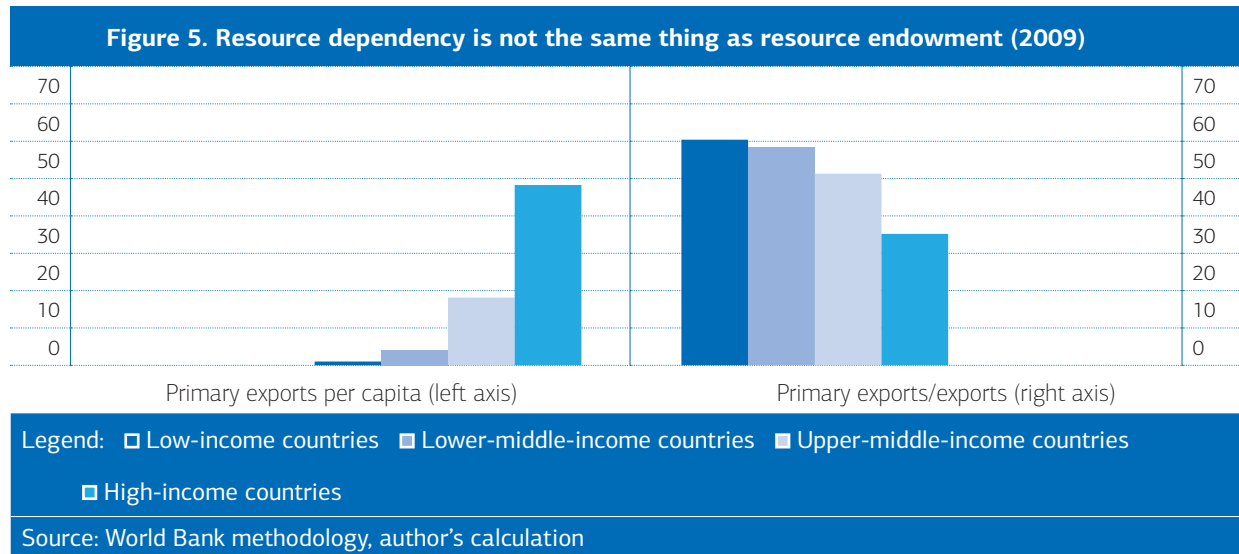
Perhaps the most misunderstood aspect of this subject matter and the point that will help bring some clarity to this complex relationship is the following: resource dependency is not necessarily the same thing as being well endowed with resources. The majority of countries that are resource dependent (measured as the share of nonfuel primary commodities to total exports) are actually relatively poorly endowed in resources (measured as per capita income derived from nonfuel primary commodities).

Conversely, many countries that are well endowed in resources have relatively low resource dependencies because, in addition to having large resource sectors, they also have significant manufacturing and

Resource dependency is not necessarily the same thing as being well endowed with resources

service sectors.<sup>6</sup> For example, low-income developing countries had per capita commodity exports of approximately \$1,000, but commodities comprised, on average, 60% of their merchandise exports. The corresponding figures for the high-income countries were \$48,000 and 35%, respectively.

<sup>6/</sup> Oil-exporting countries are excluded from this comparison because most of them are both resource rich and resource dependent.



**Table 4. Commodity-Dependent and Poor but Also Poorly Resource-Endowed**

Country Name (2009)	GDP per capita	Nonfuel primary commodities % in exports	Net primary commodities exports per capita
TOP countries dependent on non-oil primary commodities			
Guyana	2,656	92	-177
Malawi	327	91	-40
Ethiopia	386	90	-61
Zambia	1,006	90	118
Panama	6,972	89	-1,586
Nicaragua	1,082	89	-228
Paraguay	2,243	89	-427
Burkina Faso	517	88	-46
Burundi	160	77	-38
Rwanda	526	76	-92

Source: WDI

As an illustration, Table 4 lists the top 10 most resource-dependent countries in the world (non-fuel exporters). Their average per capita GDP was just \$1,600 in 2010. Even when oil exporters are included, low-income countries have the highest dependency on primary commodities but the lowest level of primary commodity exports per capita. In this instance, **“resource dependency primar-**

**ily reflects low levels of GDP, not resource richness”.**<sup>7</sup>

<sup>7/</sup> World Bank. The Commodity Boom and Long-Term Prospects. 2009. p. 98.

# IV. The Developing World: Who Is Commodity Dependent?<sup>8</sup>

<sup>8/</sup> In 2009, developing countries only accounted for 30% of global GDP but for approximately 40% of global commodity exports.



The developing world encompasses a mammoth region, both geographically and in population. According to the World Bank,<sup>9</sup> in 2010, there were 145 developing countries across four continents. Their resource dependency varies greatly by both country and region. After the MENA region,<sup>10</sup> Sub-Saharan

Natural resources – and the related government spending they financed – generated at least a full third of Africa’s GDP growth from 2000 through 2009.

**Table 5. Commodity Dependency by Region (Developing Countries Only)**

Region	commodity exports (% of merchandise exports)	commodity exports (% of total exports)	commodity exports(% of GDP)
East Asia & Pacific	20	16	6
Eastern Europe & Central Asia	60	49	15
Latin America & Caribbean	48	39	8
Sub-Saharan Africa	69	59	18
South Asia	28	18	3

Source: World Bank, author’s calculations

Africa is the region most dependent on commodity exports (for the region they accounted for almost 70% of merchandise exports and 18% of GDP in 2009). These are extraordinarily high levels, considering the volatility of commodity prices.<sup>11</sup> Over the past decade, however, Sub-Saharan Africa witnessed resuscitation in economic growth after two lost decades (6 of the 10 fastest growing economies in the last decade were in Africa). According to McKinsey, natural resources—and the related government spending they financed—generated at least a full third of Africa’s GDP growth from 2000 through 2009.<sup>12</sup>

The East Asia and Pacific region is the least dependent on commodity exports (20% of merchandise exports), with rapid industrialization

bringing down the region’s commodity export share from almost 60% as recently as 1985. South Asia’s share is also small (just 3% of regional GDP), largely reflecting India’s low resource export dependency.

As a continent, Latin America remains dependent on commodities. In the past decade, they accounted for approximately half of the region’s merchandise exports. That is down from 86% in the 1970s, but over the same period, the figure in East Asia and the Pacific fell from 94% to 30%.<sup>13</sup> The World Bank estimates that more than 90% of Latin Americans live in countries that are net exporters of commodities, the exception being Central America and the Caribbean. Nevertheless, the rise in world prices for Latin America’s commodities and the related increase in commodity output, may have accounted for between one-third and one-half of the region’s growth over the past decade.<sup>14</sup> Eastern Europe and Central Asia are also big commodity exporters (much of it coming from energy rich Central Asia), representing 15% of GDP.

9/ From the World Bank’s *The Commodity Boom and Long-Term Prospects*, 2009, p. 98.

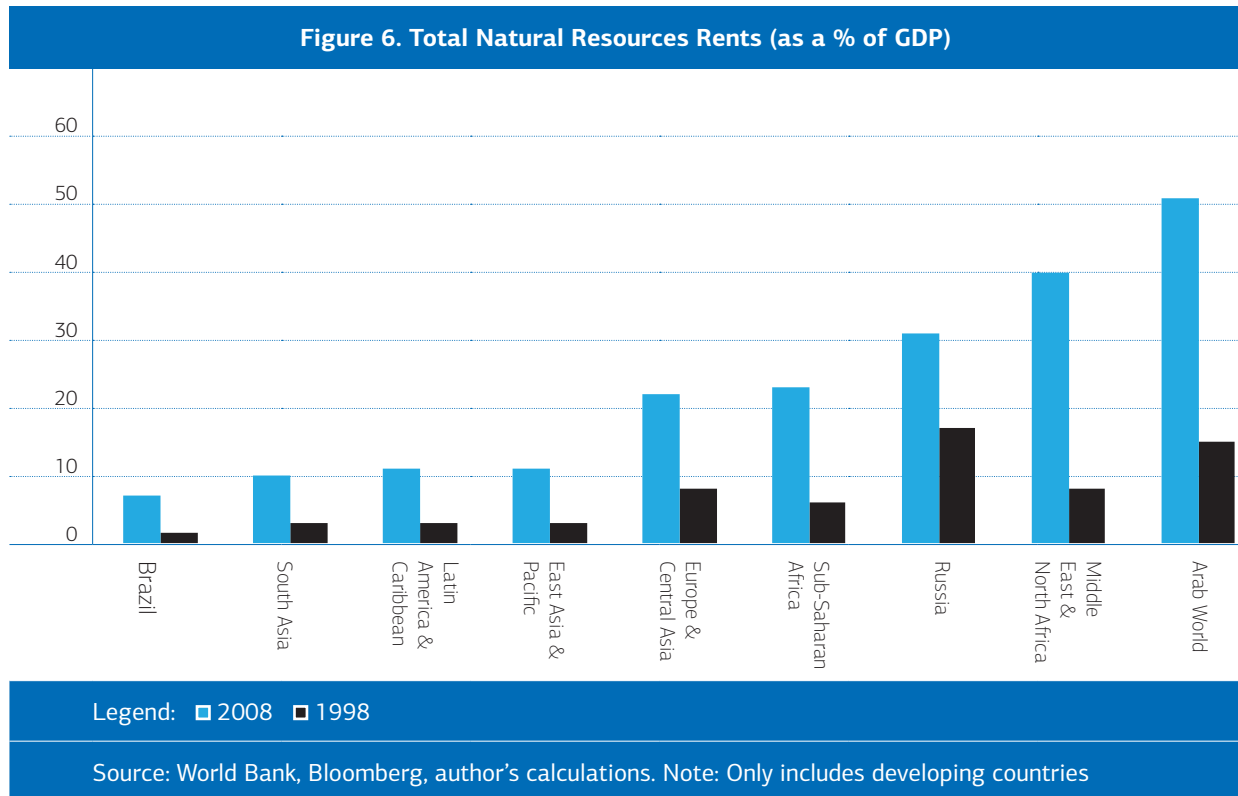
10/ There was insufficient data on the MENA region to build an adequate sample, although hydrocarbons dominate the region’s exports and economies, making the countries intensely resource dependent.

11/ A 25% decline in the region’s average commodity prices (historically not an uncommon price decline) would reduce critical export earnings and GDP growth by 18% and 4.5%, respectively.

12/ McKinsey. (2009). *What’s driving Africa’s growth?* McKinsey Quarterly.

13/ *The Economist*. It’s only natural. Sept. 9, 2010

14/ *Ibid.*



Most critically, many commodity-dependent governments have also become significantly more reliant on raw materials for their tax revenues. The increases since the 1998 emerging market crisis have been enormous for some regions (for four of the major geographical regions listed below, resource taxes accounted for more than 20% of GDP). For example, total taxes collected on natural resources (as a share of GDP) over the past decade have increased from 8% to 40% for the MENA region and have approximately quadrupled for Sub-Saharan Africa. In the Arab world, the figure is 50% of GDP, while it is almost one-third in Russia.

To be fair, some countries have offset the price volatility risk of commodity dependency by putting some of their bonanza away for a rainy day. Many of the larger exporters of hydrocarbons in the Middle East, for example, have amassed large fortunes in their sovereign wealth funds. Kuwait, Saudi Arabia, Qatar, and Abu Dhabi quadrupled the size of their sov-

ereign wealth funds over the last decade. Energy giant Russia has \$500 billion in foreign exchange reserves, while Chile has squirreled away approximately \$20 billion from its copper exports (12% of GDP). Even Mexico, Peru and Bolivia have saved part of their windfall gains thanks to high commodity prices.<sup>15</sup>

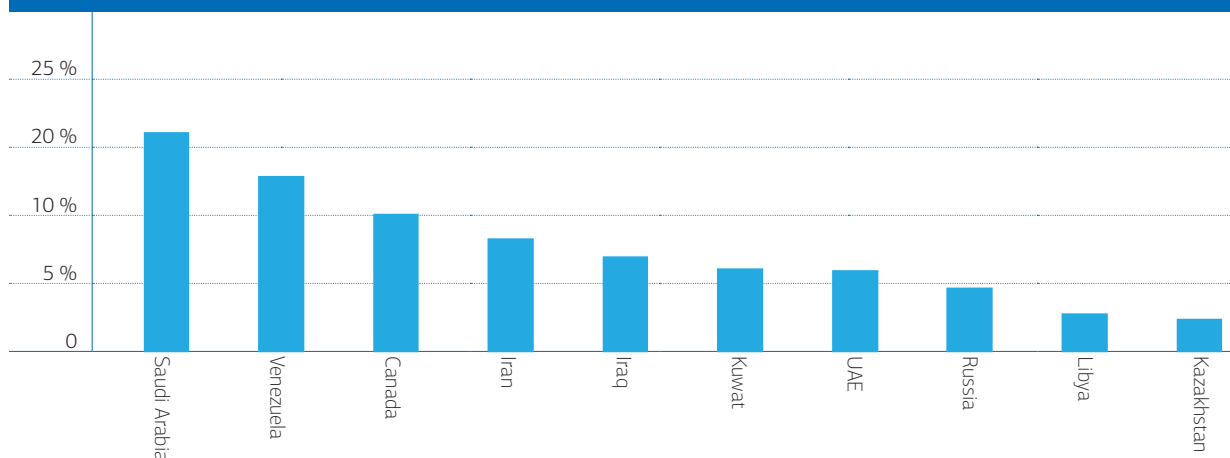
### Commodity dependency by country

Table 6 provides the 2009 net commodity balances of trade for the 28 emerging economies as a share of their GDP (the appendix lists their commodity trade balance as a share of total exports and GDP).<sup>16</sup> Approximately two-thirds of the larger emerging economies are net exporters of commodities. Not surprisingly, given their "oversized" energy trade surpluses, the

<sup>15/</sup> Ibid.

<sup>16/</sup> These 28 economies represent approximately 90% of the emerging world's GDP.

Figure 7. Proven Oil Reserves (World Share)<sup>16</sup>



Source: BP Statistical Review of World Energy, June 2011

top 4 commodity net exporters are from the GCC (Gulf Cooperation Council). In fact, 9 of the top 10 surplus countries are large exporters of hydrocarbons. Moreover, this is not going to change anytime soon. Most of the emerging world accounts for the planet's energy endowments, currently accounting for over 90% of the world's known oil reserves (with the top 10 controlling 82% in 2011).

While Brazil is not included on this list, a new oil field discovered off the coast of Rio is estimated to contain approximately 50 billion barrels. If true, this would make it one of the world's largest known offshore deposits. In one step, Brazil could jump up the world's rankings of national oil reserves and production, from 15th to 5th. So large are the discoveries, and the investment required to exploit them, that they have the potential to transform the country—for good or ill. The Brazilians have already set up a sovereign wealth fund to help manage the coming windfall as oil production is expected to in-

crease progressively throughout this decade.

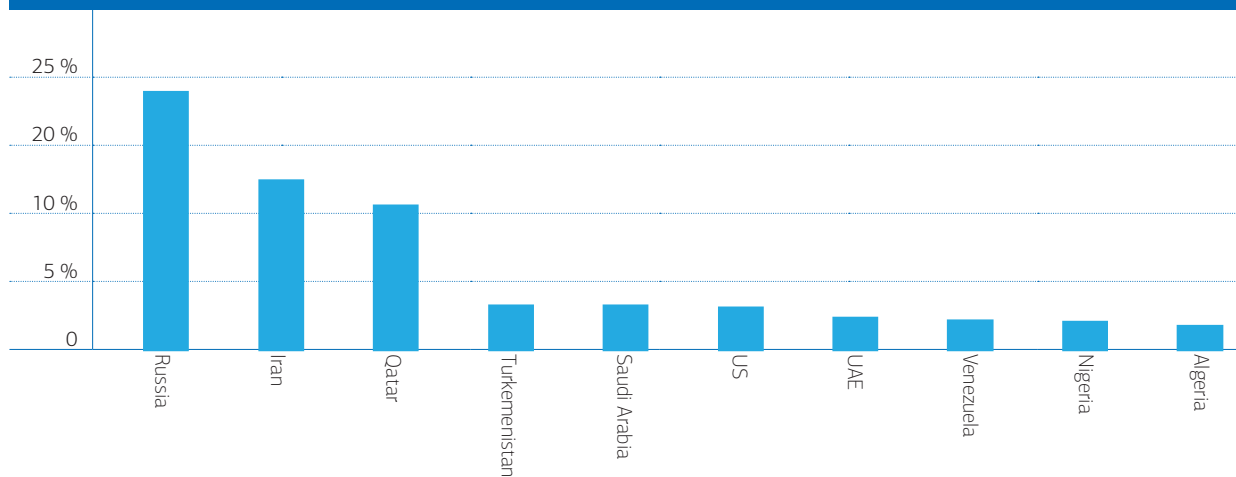
The same holds true for natural gas reserves, with the RGMs accounting for approximately 90% of known natural gas reserves (the United States is the only developed country to score in the top 10). While the production and use of alternative energy sources will continue growing, the use of these conventional energy sources is expected to remain dominant for some time.

Copper giant Chile is the largest non-energy commodity net exporter (as a share of GDP). Peru and South Africa are large net exporters of metals and minerals, while Brazil and Argentina are giant food exporters. Indonesia and Malaysia are both big exporters of natural gas, wood and rubber, while Colombia is a big exporter of coffee and several important minerals.

From 2000 until 2009, these commodity net exporting nations tripled their commodity trade surpluses from approximately \$250 billion to \$750 billion (the surplus had reached \$1 trillion in 2008, when commodity prices peaked). One-third of the largest emerging markets, however, are net commodity importers, so the net emerging market commodity surplus rose only approximately \$500 billion (from approximately \$200 billion) over the same peri-

17/ This entry is the stock of proved reserves of crude oil in barrels. Proved reserves are those quantities of petroleum which, by analysis of geological and engineering data, can be estimated with a high degree of confidence to be commercially recoverable from a given date forward, from known reservoirs and under current economic conditions.

Figure 8. Proven Natural Gas Reserves (World Share) <sup>17</sup>



Source: BP Statistical Review of World Energy, June 2011

od. RGM giants China and India accounted for most of the difference, with their commodity deficits rising from \$25 billion to \$65 billion for India (Pakistan is also a large net importer of commodities) and \$25 billion to \$280 billion for China over this period.

Outside of the GCC nations, Chile, Peru, Nigeria, Algeria, and Venezuela rely on commodities for more than three-quarters of their total exports and appear most vulnerable to price declines for their commodity exports

18/ This entry is the stock of proved reserves of natural gas in cubic meters. Proved reserves are those quantities of natural gas, which, by analysis of geological and engineering data, can be estimated with a high degree of confidence to be commercially recoverable from a given date forward, from known reservoirs and under current economic conditions.

**Table 6. Commodities – Who Exports and Who Imports  
(Commodity trade surpluses as a % of GDP)**

Surplus Country	2009 ratio (%)	Deficit country	2009 ratio (%)
Kuwait	53.78	Thailand	-0.87
United Arab Emirates	52.00	Poland	-1.52
Qatar	45.55	Hungary	-1.68
Saudi Arabia	41.90	Turkey	-3.36
Iran	29.77	India	-4.82
Nigeria	26.36	China	-5.59
Algeria	25.99	Philippines	-5.67
Chile	20.30	Ukraine	-5.97
Russian Federation	16.01	Pakistan	-6.71
Venezuela, RB	14.69	Morocco	-7.84
Peru	12.99		
Argentina	10.30		
Malaysia	9.51		
Colombia	7.59		
Indonesia	7.28		
South Africa	3.81		
Brazil	3.61		
Mexico	1.25		

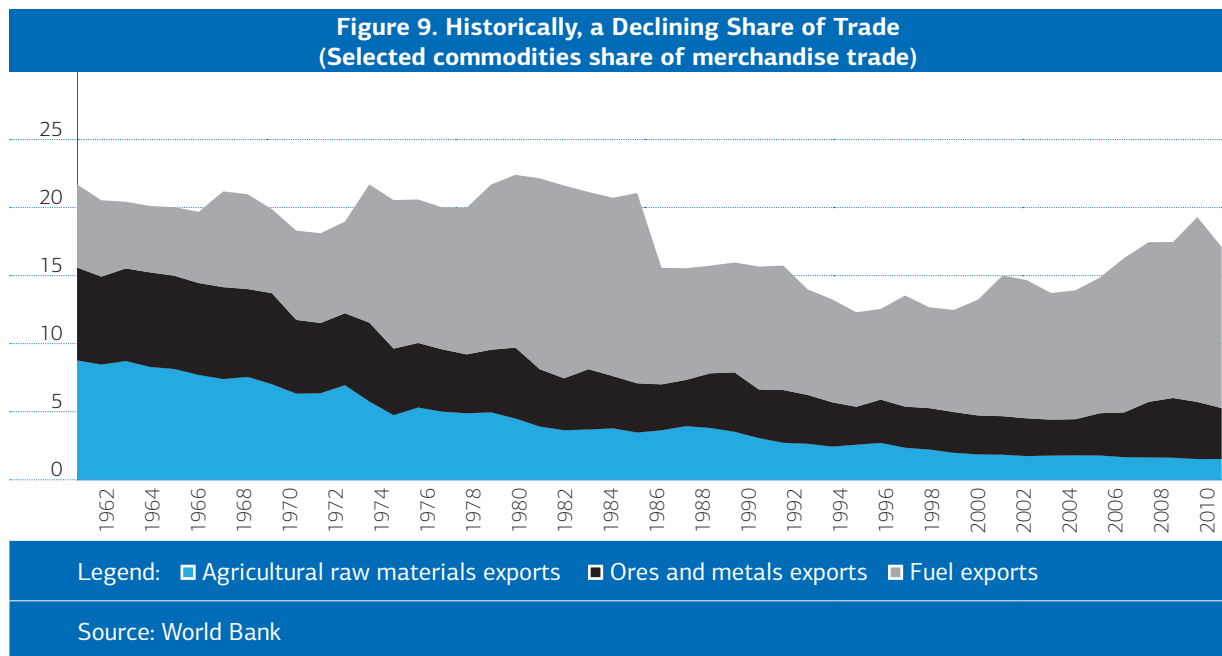
Source: WDI

# V. Long-Term Demand Prospects

There is widespread belief that the unprecedented commodity boom experienced in the last decade is just the beginning of a new era that will be characterized by commodity shortages and permanently higher prices. Demand for energy, metals, and food from the emerging markets is widely expected to drive growth, as billions of new middle class consumers emerge over the coming two decades. The literature on

anything like China did during the past decade, then prices could easily remain elevated for some time to come.

Interestingly, throughout most of the post World War II period, most commodities actually saw a declining share of merchandise trade. The commodity boom of the past decade has reversed that long trend, at least for now. The ore and metal share of global merchandise trade



the subject has no shortage of bullish projections on the topic. The global car fleet is expected to almost double to 1.7 billion by 2030. Per capita caloric intake in India is projected to rise 20% over the same period, while per capita meat consumption in China is expected to increase by 60%. Demand for physical infrastructure—and in turn for commodities like iron ore and cement—is expected to soar as the emerging markets continue their rapid urbanization.<sup>19</sup> Of course, if enough RGM countries like India or Indonesia start consuming commodities

has reached levels not experienced since two decades ago, while fuel exports' global share has been hovering in recent years at levels last witnessed during the mid-to-early 1980s. The only major commodity group whose downward share of global merchandise trade has continued falling is agricultural raw materials, whose share has halved since 1990.

That said, there are good reasons to expect that the bull market in commodities over the last decade is unlikely to be replicated anytime soon. While the short-run supply of commodities is notoriously price inelastic, there is no reason to believe that the long-run supply of most commodities will not eventually be re-

19/ Projections from McKinsey Quarterly, A new era for commodities. Nov. 2011. p.1.

sponsive to higher global prices. Historically, they always have been.

More importantly, a number of long-term trends suggest that the main factors driving commodity demand will begin decelerating. Over the next two decades, annual global population growth is expected to slow significantly from 1.2% during the 2000s to a projected 0.8% over 2015–2030.<sup>20</sup> Global per capita income growth is also projected to slow for the world, mainly because incomes in the largest developing countries are expected to rise less rapidly than they did from 1990 through 2010. This implies that while global demand for grains, metals, and minerals from the emerging world will remain robust, growth in demand will begin moderating.

The changing composition of GDP should also moderate commodity demand as the global service sector grows faster than the more commodity-intensive manufacturing sector. This trend will be shared by both developing and developed countries. And last, technological change, while impossible to predict, typically slows demand because of increased efficiency in commodity production. China aside, the commodity “intensity” for most products has been rapidly declining.

There are good reasons to expect that the bull market in commodities over the last decade is unlikely to be replicated anytime soon

20/ United Nation's projections.





# VI. Conclusion

In this paper, we found that the relationship that commodities have with emerging markets is somewhat complex and nuanced. We discovered that while much of the emerging world is indeed commodity- “dependent” to varying degrees, there is some evidence that an abundance of natural resources may not necessarily impair economic growth and development, but in fact can actually enhance it.

Relying on raw materials, however, carries a series of risks. One is enormous price volatility. Protracted periods of booms are often followed by protracted periods of bust or underperformance. Some of the superior economic performance in the emerging world during the last decade can be directly attributable to the unprecedented 2003–2008 commodity boom. A drawn-out bear market in commodities would probably dampen the glitter of the emerging world (with RGM giants India and China and other large commodity importers being the exceptions).

Possessing generous commodity endowments also presents particular challenges that require appropriate policies to overcome. A precipitous rise in the value of nation’s commodities can contribute to a country’s development, if the income generated is productively saved and effectively invested. “What determines whether resource wealth generates wider development is the extent to which the proceeds are consumed or saved; whether they are invested in high or low-return enterprises; the extent to which rents accrue to the population at large or are channeled through the government; and whether they are deployed responsibly and transparently by governments, or used to fund a bloated civil service or are even stolen outright.”<sup>21</sup> Does anyone, for example, doubt that Russia would be more open to foreign direct investment or that Nigeria would be less corrupt if they were not energy powerhouses?

However the phenomenon plays out over the coming years and even decades, commodities and emerging markets are very much “joined at the hip,” and their evolving story will be a critical and compelling one to watch.

21/ World Bank’s *The Commodity Boom and Long-Term Prospects*. 2009, p. 101.

# Appendix

Commodity intensity from the largest RGMs			
Country Name	commodity exports (% of merchandise exports)	commodity exports (% of total exports)	commodity exports (% of GDP)
Argentina	66	56	12
Brazil	59	51	6
Chile	85	75	28
China	6	6	2
Colombia	71	61	10
Hungary	12	n.a.	8
India	29	17	3
Indonesia	59	55	13
Kuwait	94	n.a.	n.a.
Malaysia	30	25	24
Mexico	23	22	6
Nigeria	96	84	30
Pakistan	24	20	3
Peru	84	75	18
Philippines	14	10	3
Poland	19	15	6
Romania	19	14	5
Russian Federation	78	70	19
Saudi Arabia	88	84	45
South Africa	52	43	12
Thailand	25	21	15
Turkey	18	13	3
Ukraine	36	27	12
Venezuela, RB	97	94	17
Algeria	98	78	32

## IEMS Research Monthly Briefs

---

- Vol. 09-01 "The global financial crisis: impact and responses in China and Russia" (February 2009).  
 Vol. 09-02 "Managing through the global recession: Opportunities and strategic responses in China and Russia" (March 2009).  
 Vol. 09-03 "Global expansion of emerging multinationals: postcrisis adjustment" (May 2009).  
 Vol. 09-04 "Operational challenges facing emerging multinationals from Russia and China" (June 2009).  
 Vol. 09-05 "MNC Operations in Emerging Markets: Post-Crisis Adjustments of FDI Inflows in China and Russia" (August 2009).  
 Vol. 09-06 "Is Demographics Destiny? How Demographic Changes Will Alter the Economic Futures of the BRICs" (September 2009).  
 Vol. 09-07 "Executive leadership structure in China and Russia" (December 2009).  
 Vol. 10-01 "Size Matters: Just How Big Are The BRICs?" (January 2010).  
 Vol. 10-02 "Decoupling Revisited: Can the BRICs Really Go Their Own Way?" (February 2010).  
 Vol. 10-03 "The "New Geography" of International Trade "How the Emerging Markets are Rapidly Changing Global Trade" (March 2010).  
 Vol. 10-04 "Chief Executive Officer Turnover in China and Russia: Implications for Corporate Governance and Strategic Management" (April 2010).  
 Vol. 10-05 "Sovereign Wealth Funds and the New Era of BRIC Wealth" (July 2010).  
 Vol. 10-06 "Corporate Giants and Economic Growth — A Case for China and Russia" (August 2010).  
 Vol. 10-07 "Is Low Wage Manufacturing in China Disappearing? - Who will be the World's next Workshop?" (November 2010).  
 Vol. 11-01 "The New Oil Paradigm: Can the Developing World Live with \$100 Plus Oil?" (January 2011).  
 Vol. 11-02 "Beyond Business, Not Beyond Government: How Corporate Social Responsibility Leaders in China and Russia Do Philanthropy" (February 2011).  
 Vol. 11-03 "All Roads Lead to Rome: High Performance Firms in China and Russia" (June 2011).  
 Vol. 11-04 "Stock Market Development and Performance in the Emerging Economies" (July 2011).  
 Vol. 11-05 "The Political Dimension Of Doing Good: Managing the State Through Csr In Russia And China" (August 2011).  
 Vol. 11-06 "Food Prices: Drivers and Welfare Impacts in Emerging Market Economies" (September 2011).  
 Vol. 11-07 "The Rapid Ascendency of the Emerging World's Financial Markets. A Snapshot of their Development" (September 2011).  
 Vol. 11-08 "World Financial Crisis and Emerging Market Bank Performance: A Bank Efficiency Study" (September 2011).  
 Vol. 11-09 "The Rising Cost of Doing Business in Emerging Markets: Targeting Entrepreneurs in Tough Economic Times" (October 2011).  
 Vol. 11-10 "Victimizer, Victim or What: Unraveling the Multinational Corporation's Public Crisis in China and Russia" (November 2011).  
 Vol. 11-11 "African Lions in the Making" (December 2011).  
 Vol. 12-01 "IEMS Emerging Market Soft Power Index" (February 2012).  
 Vol. 12-02 "Riskiness of BRIC Banks in a Risky World" (May 2012).  
 Vol. 12-03 "Hide or Fight: Profit Misreporting in Emerging Economies: China and Russia" (June 2012).  
 Vol. 12-04 "Brave New World SKOLKOVO-E&Y 2012 Emerging Market Index" (August 2012).  
 Vol. 12-05 "Towards a Eurasian Union: Opportunities and Threats in the CIS Region" (October 2012).  
 Vol. 12-06 "Commodities and Rapid Growth Markets: Joined at the Hip?" (November 2012).

## IEMS Issue Reports

---

- Vol. 10-01 “The World’s Top Auto Markets in 2030: Emerging Markets Transforming the Global Automotive Industry” (May 2010).
- Vol. 10-02 “The Productivity Prize. Accounting for Recent Economic Growth among the BRICs: Miracle or Mirage?” (June 2010).
- Vol. 10-03 “The Great Equalizer. The Rise of the Emerging Market Global Middle Class” (September 2010).
- Vol. 10-04 “Central Bank Independence and the Global Financial Meltdown: A View from the Emerging Markets” (November 2010).
- Vol. 11-01 “Brave New World, Categorizing the Emerging Market Economies – A New Methodology, SKOLKOVO Emerging Market Index” (February 2011).
- Vol. 11-02 “The New Geography of Capital Flows” (March 2011).
- Vol. 11-03 “All That’s Old is New Again: Capital Controls and the Macroeconomic Determinants of Entrepreneurship in Emerging Markets” (April 2011).



**The Moscow School of Management SKOLKOVO** is a joint project of Russian and international business representatives, who joined their efforts to create a business new-generation school from scratch. Focusing on practical knowledge, the Moscow School of Management dedicates itself to training leaders, who intend to implement their professional knowledge in the conditions of rapidly developing markets. SKOLKOVO is defined by: leadership and business undertakings, rapidly developing markets focus, innovative approach towards educational methods.

The Moscow School of Management SKOLKOVO project is fulfilled by the governmental-private partnership within the framework of the Education Foreground National Project. The project is financed by private investors, and doesn't use governmental budget resources. The Prime Minister of the Russian Federation Dmitry A. Medvedev is Chairman of the SKOLKOVO International Advisory Board.

Since 2006 SKOLKOVO conducts short educational Executive Education programmes for top and medium-level managers – open programmes and specialized, integrated modules based on the companies requests. SKOLKOVO launched Executive MBA programme in January 2009, first class of the international Full-time MBA programme – in September 2009.

---

Moscow School of Management SKOLKOVO  
Novaya ul. 100, Skolkovo village, Odintsovsky district,  
Moscow region, Russia, 143025  
Phone.: +7 495 580 30 03, Fax: +7 495 994 46 68  
E-mail: info@skolkovo.ru Website: www.skolkovo.ru



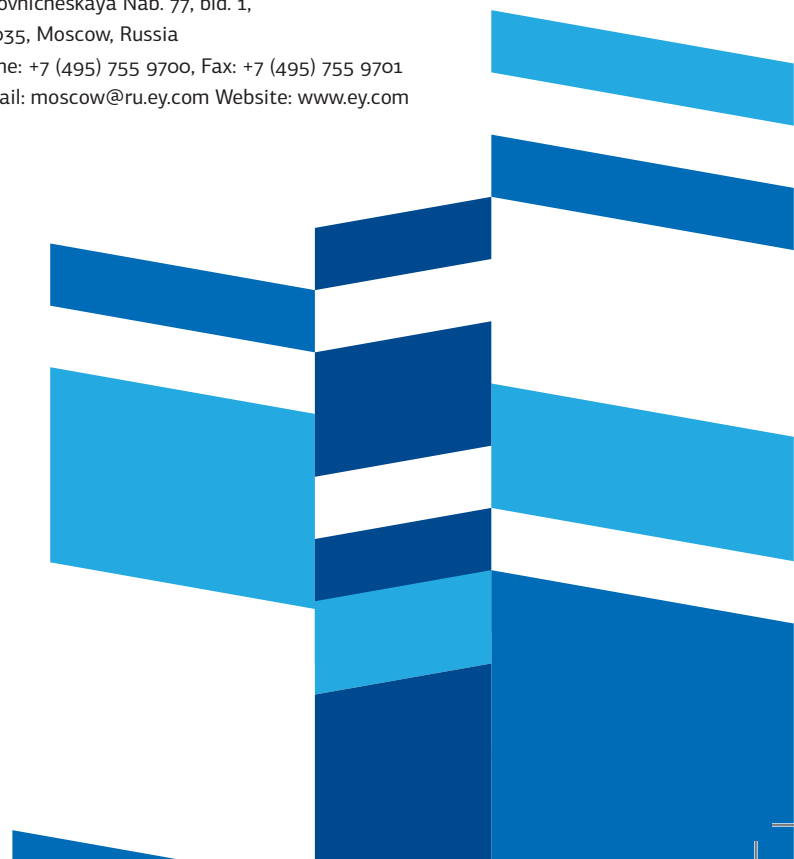
**Ernst & Young** is a global leader in assurance, tax, transaction and advisory services. Worldwide, our 144,000 people are united by our shared values and an unwavering commitment to quality. We make a difference by helping our people, our clients and our wider communities achieve their potential.

With the opening of our Moscow office in 1989, we were the first professional services firm to establish operations in the Commonwealth of Independent States. Ernst & Young expands its services and resources in accordance with clients' needs throughout the CIS. 3,400 professionals work at 16 offices throughout the CIS in Moscow, St. Petersburg, Novosibirsk, Ekaterinburg, Togliatti, Yuzhno-Sakhalinsk, Almaty, Astana, Atyrau, Baku, Kyiv, Donetsk, Tashkent, Tbilisi, Yerevan, and Minsk.

Across all industries, and at local and international levels, our professionals are recognized for their leadership, know-how, and delivery of accomplished results. We aim to help you identify and reduce business risks, find solutions that will work, and open new opportunities for your company. Through more than 20 years of our operations in the CIS, we have provided the critical information and the trusted resources to pave the way for improved business performance and profitability.

---

Ernst & Young  
Sadovnicheskaya Nab. 77, bld. 1,  
115035, Moscow, Russia  
Phone: +7 (495) 755 9700, Fax: +7 (495) 755 9701  
E-mail: moscow@ru.ey.com Website: www.ey.com



**The SKOLKOVO Business School – Ernst & Young Institute for Emerging Market Studies (IEMS)** is a global, network-based think tank, focused on managerial and economic issues, based in and dedicated to the study of emerging markets. Its mission is to create high-impact research that addresses critical issues in emerging market development.

IEMS pursues interdisciplinary, practice-based, and comparative research through its fulltime research staff and global coalition of institutions, scholars, and experts. Its research contributes to the sustained and balanced growth of emerging markets and is distributed among policy-makers, entrepreneurs, business executives, and academics around the world. IEMS prides itself on providing:

- A managerial perspective on key economic, social, and corporate issues
- Field-based, issue-driven, and project-based research
- A comprehensive and inter-disciplinary approach
- Comparative studies across multiple emerging markets
- Rigorous studies with practical value and broad applications

With offices currently in Beijing and Moscow, IEMS will eventually have regional offices across all major emerging markets including India, the Middle East, South Africa, and Brazil.

---

IEMS Beijing

Unit 1608 North Star Times Tower  
No. 8 Beichendong Rd., Chaoyang  
Beijing, China 100101  
tel: +86 10 6498 1634, fax: +86 10 6498 1634 (#208)

IEMS Moscow

Moscow School of Management SKOLKOVO  
Novaya ul. 100, Skolkovo village, Odintsovsky district  
Moscow region, Russia, 143025  
tel: +7 495 580 30 03, fax: +7 495 994 46 68

E-mail: [iems@skolkovo.ru](mailto:iems@skolkovo.ru)

Website: [www.skolkovo.ru/iems](http://www.skolkovo.ru/iems)

