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Resilient, stable, sustainable

The benefits of economic diversification

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Contacts

Abu Dhabi

Richard Shediac
Senior Partner
+971-2-699-2400
richard.shediac
@strategyand.pwc.com

Beirut

Chucrallah Haddad
Partner
+961-1-985-655
chucrallah.haddad
@strategyand.pwc.com

Salim Ghazaly
Partner
+961-1-985-655
salim.ghazaly
@strategyand.pwc.com

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EXECUTIVE SUMMARY

The effects of the recent global economic crisis were all-pervasive, and demonstrated that no economy is safe from destabilizing external events. Resource-dependent countries, with their narrow base of economic activity, are particularly vulnerable, but all countries may have vulnerabilities stemming from a lack of diversification in one or more economic dimensions, and they must be more vigilant in managing risks to their economies. Not only must a country's gross domestic product (GDP) be balanced among sectors, but key elements of its economy must be varied, flexible, and readily applicable to a variety of economic opportunities, and areas of overconcentration must continually be identified and mitigated. Policymakers should work to achieve greater economic diversification, in order to reduce the impact of external events and foster more robust, resilient growth over the long term.

For resource-rich, developing economies, the immediate imperative is to diversify export-oriented sectors, but for the benefit of long-term sustainability, they must also look at the larger picture. A strong institutional and regulatory framework and workforce development initiatives are indispensable to the diversification effort; and proper management of human capital is key, especially in those countries experiencing a "demographic dividend." Implementing such comprehensive diversification and risk-management strategies won't be easy, but the result—a diverse, stable, and growing economy—is worth the effort.

KEY HIGHLIGHTS

- The best indicator of countries' successful development is no longer sheer gross domestic product (GDP) growth but rather risk-adjusted, sustainable growth.
- In order to implement the most effective diversification strategy, nations must first establish strong economic institutions capable of overseeing this process; a truly diversified economy requires institutional regulatory reform and workforce development initiatives.
- For developing economies, young, rapidly growing populations represent a potential "demographic dividend," which can reap benefits in economic development but can also become a hindrance if the proper education and training initiatives are not implemented.
- For resource-rich developing nations, sector diversification is still the first priority; a failure to achieve this first step in diversification will undermine these countries' strong growth potential.

MANAGING RISK WITH DIVERSIFICATION

In an era when a housing collapse in the U.S. can trigger a global economic crisis, and unsustainable debt levels in Greece can shake the very foundations of the European Union (EU), it is clear that economies can be affected by destabilizing external events halfway around the world. This vulnerability is particularly acute for resource-dependent countries, which have a narrow base of economic activity and little cushion if and when exogenous issues have an impact on their economies. Because the current crisis triggered such pervasive effects, it is ushering in a new paradigm that applies the principles of risk management to economic development. In this light, the best indicator of countries' successful development is no longer sheer gross domestic product (GDP) growth but rather risk-adjusted, sustainable growth.

Policymakers used to assume that if risks were managed throughout the economy at the micro level, then risks in the overall economy at the macro level would be mitigated automatically. The recent crisis has made clear that this is not the case; countries need to look at the big picture in managing risks to their economies. A central element of this risk-management paradigm is the need for greater economic diversification, which not only reduces the impact of external events but fosters more robust, resilient growth over the long term.

Significantly, this diversification transcends the most common definition—an economy made up of several strong and balanced sectors with low correlation and interdependence among each other. It requires diversification across other dimensions, including trade profile, concentration of human capital, sources and use of investment capital, savings and consumption patterns, enterprise base, and other parameters.

Such a comprehensive diversification strategy is a complex undertaking. Capital chases returns, and unchecked economies tend to become more concentrated over time. This concentration itself is not the danger; rather, it leaves these countries vulnerable to external events that can affect large sections of their economy. Because regions have become so interconnected and the global economy now changes so quickly, future risks to specific sectors are almost impossible to predict, and a risk-management approach holds that the only way to minimize these risks is to diversify the economic base.

The challenge for policymakers is to be continuously alert to potential areas of overconcentration, whether that may be an excessive percentage of foreign direct investment (FDI) from one source, the emergence of a group of companies that are too big to fail, or an economic overreliance on consumption. Policymakers must skillfully exercise their influence to help channel capital, labor, and technology away from these temptingly easy areas and toward others that can pay more profound, long-term dividends.

In order to implement the most effective diversification strategy, many of these nations must first establish strong economic institutions capable of overseeing this process. Particularly for developing economies, this represents a significant challenge. In addition, these countries must understand the role of demographic trends when implementing a diversification strategy. Young, rapidly growing populations represent a potential “demographic dividend,” which can reap benefits in economic development but can also turn into a hindrance if the proper education and training initiatives are not implemented.

The need for diversification in all areas of the economy is an issue for countries at all stages of development; advanced countries that have achieved sector diversification are still at risk from concentration in other areas. But for resource-rich developing nations clustered in Africa, Asia, the Gulf Cooperation Council (GCC) region, and Latin America, sector diversification is still the first priority. A failure to achieve this first step in diversification will undermine these countries’ strong growth potential. However, in a sense, these countries have an opportunity that more economically advanced nations do not—the chance to get diversification right as their economies grow, rather than attempting to retrofit diversification measures on a mature economy.

To explore the best diversification strategies for developing economies, Booz & Company analyzed a group of 28 nations worldwide in several broad categories: the G7; resource-rich nations in other parts of the world (Africa, Asia, the GCC, and Latin America); and transformation economies.[1] The results indicate that diversifying across all parameters of a national economy can bring significant benefits in the form of stable, sustainable economic growth.

The challenge for policymakers is to be continuously alert to potential areas of overconcentration.

REDEFINING DIVERSIFICATION

At first glance, advanced economies would seem to be more diversified than developing nations. However, many developed nations have been severely affected by the current crisis, revealing that although they might be diversified along the most basic sector parameters, they still have vulnerabilities stemming from a lack of diversification in one or more other elements of their economies.

Countries that are overly dependent on exports, a single trading partner, a single national champion, government spending, or leveraged consumption all leave themselves at unnecessary risk of exogenous events.

Examples abound from the developed world. In 2007, as the global crisis was about to break, Ireland's economy was overly reliant on trade service (roughly 150 percent of its GDP). The credit crunch of the following year and the recession in the economies of major trading partners resulted in the collapse of Irish export growth. Real GDP contracted by 3 percent in 2008 and by about 7 percent in 2009. Unemployment in the country also increased from 4.5 percent in 2007 to 12 percent in 2009.[2]

In a similar vein, several countries maintain a large imbalance in overall economic activity. The economies of the U.S. and the U.K. are heavily tied to household consumption, which comprises

71 percent of GDP in the U.S. as of 2008, or roughly six times the GDP export share. Nor are emerging economies immune to this imbalance, as evidenced by Brazil's relatively high consumption. Even during times of expansion, such economies are subject to seasonal swings and the whims of consumer behavior. During periods of economic contraction, declines in consumer confidence have a more profound effect; the U.S. economy in 2011 is still bogged down with high unemployment and relatively low confidence.

The problems in U.S. consumer spending have caused an inverse—though equally vexing—problem in countries such as China, Russia, and Germany, which all have a sizable percentage of their GDP tied to exports. In China, for example, 37 percent of GDP comes from export activity, mostly to a single trading partner—the U.S. When the U.S. economy contracted in 2009 and its consumers slowed their purchasing, the economy in China suffered and policymakers reacted by stimulating domestic demand. The export issue is equally pronounced in Germany, which had 47 percent of its GDP tied to exports in 2008.

Other countries lack diversification in their enterprise base. Italy is dominated by small and medium-sized companies, with roughly 95 percent of companies falling into this single category. These companies are the first to shed jobs during a recession, making the country less able to ride out periodic downward trends in the business cycle. At the other end of the spectrum are those countries with a disproportionate amount of economic activity tied to a few large companies, as demonstrated by the U.S. banks and car companies that undermined the national economy in 2008. In 1995, the five largest U.S. banks held 11 percent of total deposits; in 2009 they held 40 percent.[3] In South Korea in the late 1990s, the *chaebol*[4] system experienced financial difficulties and dragged down the entire nation's economy. Of the 30 largest *chaebols*, 11 failed between 1997 and 1999; the Daewoo group collapsed with US$80 billion in unpaid debt, making it the largest corporate bankruptcy at the time.[5]

Finally, some countries are overly concentrated in their sources of investment, particularly FDI. In Ireland, Bulgaria, and Estonia, FDI is a principal source of economic activity, making up a large share of GDP. This is problematic as FDI can fluctuate significantly from year to year, due to circumstances outside of a country's control. In Ireland, for instance, FDI constituted 2.2 percent of GDP in 2006, soared to 8.8 percent in 2007, and plummeted to –1.2 percent in 2008.[6]

Iceland's recent economic woes stemmed in part from two FDI issues—an excessive reliance on such investments, along with too few sources (primarily Belgium and Luxembourg, whose capital was destined for business services). In addition, Iceland allowed its banking sector to dominate, throwing the overall economy out of balance. Bank liabilities increased more than five-fold from 2005 to 2008, and assets reached 10 times the size of the country's GDP. By 2008, the three largest Icelandic banks had $60 billion in debt, and the financial crisis triggered a depreciation in which the krona fell 98 percent against the euro. Only a $10 billion multinational aid effort and a $2 billion government injection averted a total economic meltdown in the country.

Developing countries are subject to these imbalances as well. Tunisia, for example, has done well in diversifying at a sectoral level, but it has imbalances and structural risks in other aspects of its economy. Textile and leather goods alone make up more than one-fourth of its exports, and mechanical and electric products make up another fourth. At the same time, Tunisia has a limited number of trading partners—more than 72 percent of exports are destined for EU countries, with more than 60 percent going to just three countries: France, Italy, and Germany. This puts Tunisia at substantial risk from macroeconomic events affecting the EU region.

At the same time, Tunisia relies heavily on a single domestic national champion—one conglomerate is of sufficient scope and size that its failure would significantly impact the national economy. By 2012, this company's revenue is expected to reach $1.12 billion, or 4 percent of the country's GDP, and it currently employs more than 8,500 people—in a country with a population of 10.5 million—including more than 10 percent of Tunisian engineers.[7]

The fundamental question is not simply whether a country's GDP is balanced among sectors but rather whether the key elements of its economy—its exports, investments, human capital, enterprise base, technology, and knowledge—are varied, flexible, and readily applicable to a variety of economic opportunities. The imperative for policymakers is to build a risk-management approach that not only monitors these elements but continually seeks out potential areas of overconcentration, including those that may not yet be evident, recognizing that this is an unending quest rather than a single hurdle.

It is important to note that policymakers should not attempt to undermine or eliminate the elements that are at the heart of their countries' success. Large corporate conglomerates played a key role in the growth of South Korea's economy; the attraction of foreign investment was critical to Ireland's development; China's exports launched its stratospheric growth. Instead, policymakers should seek out counterbalances to these dominant influences to ensure they do not play a disproportionate role in the economy.

The fundamental question is not whether a country's GDP is balanced among sectors but whether the key elements of its economy are varied and flexible.

DIVERSIFICATION FOR RESOURCE-RICH, DEVELOPING ECONOMIES

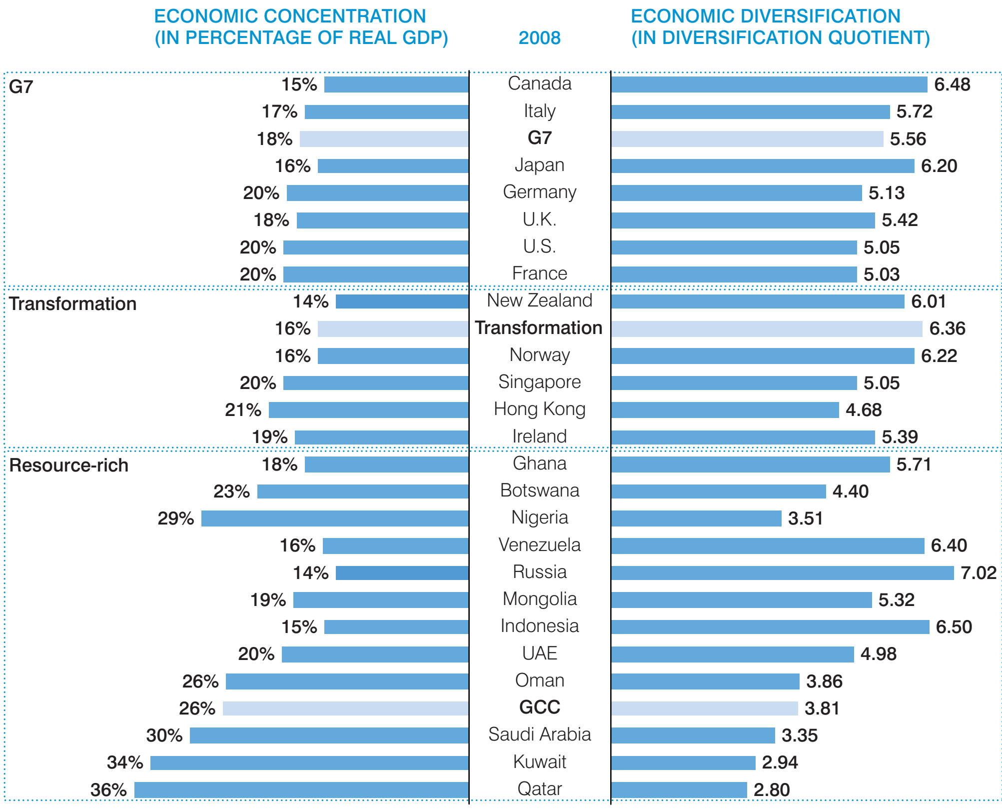
For resource-rich countries in Africa, Asia, the GCC, and Latin America, comprehensive diversification is a long-term goal; their immediate priority must be export-oriented sector diversification, after which other forms of diversification will follow. These countries are still significantly less diversified at the sector level than more developed countries (*see Exhibits 1 and 2*).

For example, Russia's economic crisis of 1998 was attributed to a global drop in the price of raw materials. At the time, Russia was overly dependent on a single category of exports, specifically raw materials such as natural gas, timber, and petroleum, which made up 80 percent of the country's exports. Even today, those materials constitute 73 percent of Russian exports.[8]

Similarly, the GCC countries have for decades generated most of their economic activity from the production and export of oil. In fact, the GCC economies have remained consistently concentrated over the past two decades, with a steady percentage of their GDP—nearly half, dating back to 1985—coming from oil and gas and related sectors.[9] As a result, GCC economies have risen and fallen with the price of these commodities. In Saudi Arabia, which is the region's largest economy, GDP growth has varied dramatically over the years, ranging from –22 percent to +10 percent, almost entirely correlating to oil price changes and shocks.[10]

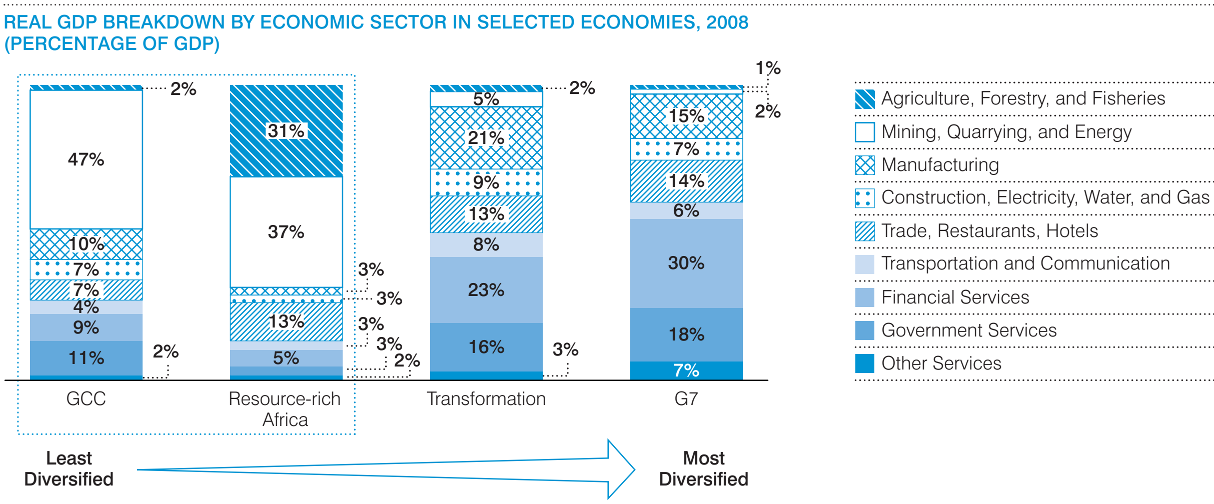
Exacerbating this trend is the fact that productivity in these sectors tends to be higher than for other components of the economy. That results in correspondingly greater GDP growth within these sectors, making them more concentrated over time. In response, several GCC economies have taken steps to diversify by funneling oil revenue

Exhibit 1
Resource-rich Countries Are the Most Concentrated and the Least Diversified



Note: The concentration ratio measures how concentrated a particular economy is in any given sector by taking the sum of squares of percent contribution to GDP. The diversification quotient is the inverse of the concentration ratio.
Source: Global Insight database; IMF World Economic Outlook 2006; OECD statistics; official statistics bureaus of sampled economies; Booz & Company analysis

Exhibit 2
Resource-rich Countries Are Heavily Reliant on Certain Sectors



Note: Resource-rich African countries include Ghana, Nigeria, Angola, and Botswana.
Source: Global Insight database; official statistics bureaus of sampled economies; World Bank; OECD statistics; Booz & Company analysis

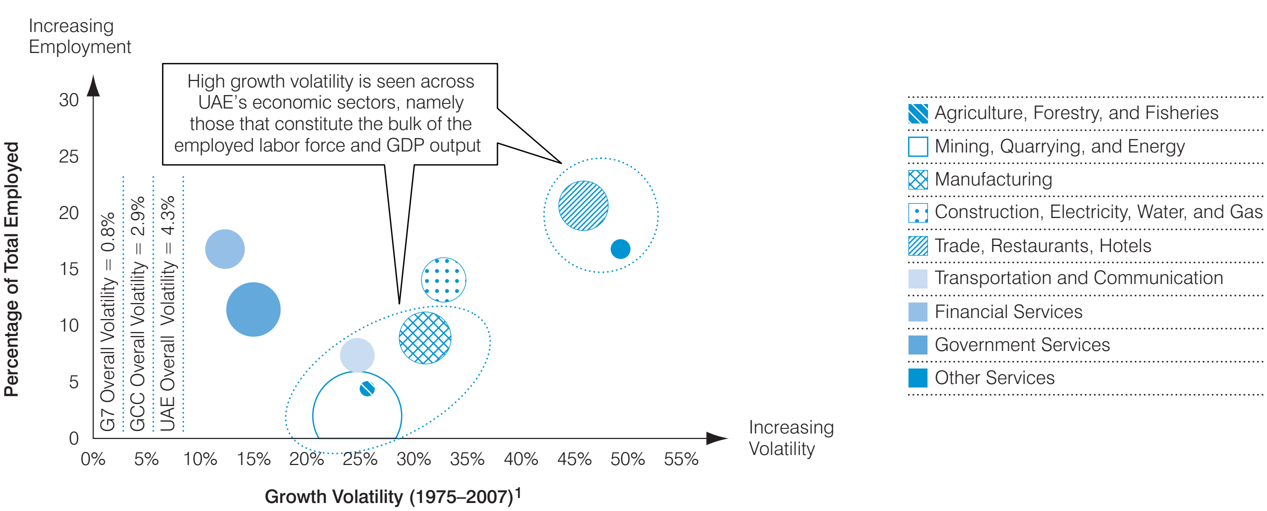
to other sectors, such as the United Arab Emirates's recent and well-publicized attempts to develop tourism, real estate, transport and logistics, and financial sectors in Dubai, among others. However, these attempts at diversification could have gone further. They failed to address supply and demand fundamentals, as investments were overly reliant on debt and leverage, and the sources of investment were heavily concentrated with short-term speculators.

Additionally, the diversification targets were supporting sectors rather than productive sectors—i.e., there is no need for a real estate sector unless there is activity in other sectors of the economy. Oil continued to be the engine of growth, with other sectors pulled along by its momentum. As a result, even these non-oil sectors have tended to track oil prices, suggesting overspill and contagion effects, and reinforcing the extent to which oil impacts virtually everything else in the region (*see Exhibit 3*).

However, this need not represent the default mode for hydrocarbon-rich nations. Both Norway and Canada have vast hydrocarbon reserves yet have nonetheless managed to develop diverse, stable, and growing economies. As a result, they are both far less vulnerable to oil-price swings. Oil makes up approximately one quarter of Norway's GDP, compared

Exhibit 3
Exposure to Oil Has Led to Volatility in Employment and GDP Growth in the UAE

UAE EMPLOYEES AND GROWTH VOLATILITY BY ECONOMIC SECTOR, 2007



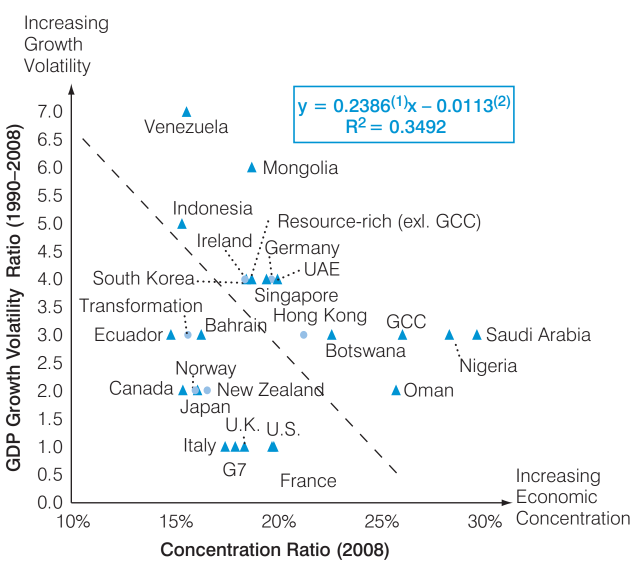
[1] Historical aggregate and sectoral volatilities are measured by the standard deviations of aggregate and sectoral real activity growth rates respectively over the sampled period.
Source: International Labor Organization; UAE Ministry of Economy; UAE Central Bank; Booz & Company analysis

to more than half of the GDP for Qatar. During the oil-price fluctuation of 2004–05, real GDP in Qatar jumped 18 percent, and then fell 15 percent the following year, compared to a two-point swing in Norway.

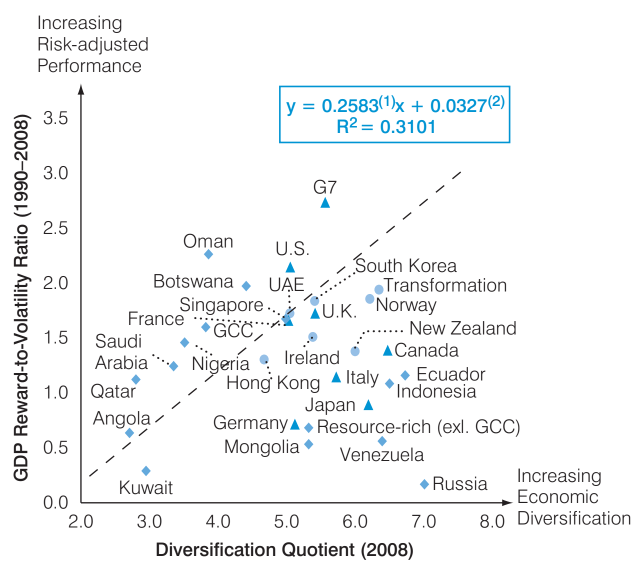
Norway's success in diversification comes in large part from following a "path-dependency approach" in leveraging dominant market positions. With roots as a major global fish producer, the country moved from fisheries to genetically modified aquaculture, to biotech, and finally into nanotechnology. Starting with a reliance on a natural resource, the country moved one step at a time into industries that increased its overall innovation capabilities and diversified its economy. It is a more rational approach than that taken by countries that decide to invest in a particular sector—such as renewable energy—because it is capturing headlines, without having a clear series of steps to achieve success in that sector. Crucial in this approach is the need to establish milestones in order to benchmark intermediate steps, while remaining flexible enough to accommodate unforeseen circumstances. Booz & Company has assembled evidence of a clear relationship between economic diversification and sustainable development (*see Exhibit 4*).[11]

Exhibit 4
Diversification Reduces Volatility and Improves Risk-adjusted Real Economic Activity

GDP GROWTH VOLATILITY VS. CONCENTRATION IN RESOURCE-RICH, G7, AND TRANSFORMATION ECONOMIES



GDP REWARD-TO-VOLATILITY RATIO VS. DIVERSIFICATION QUOTIENT IN RESOURCE-RICH, G7, AND TRANSFORMATION ECONOMIES



[1] Indicates a statistical significance at a 99% confidence interval.
[2] Panel-data regressions using the General Method of Moments (GMM) showed visible improvements to the overall adjusted goodness of fit. Additionally, diagnostic checks and a collection of regressions run with an extensive array of control variables asserted that the found relationships are both statistically valid and reliable.
Note: The GDP Growth Volatility Ratio, also known as the Sharpe Ratio, is computed by dividing the average GDP discrete growth premium by the historical growth or growth premium volatility. The higher the Sharpe Ratio, the better the economy's risk-adjusted performance is – i.e., average economic return per unit of volatility.
Source: Country statistics bureaus; Global Insight database; Booz & Company analysis

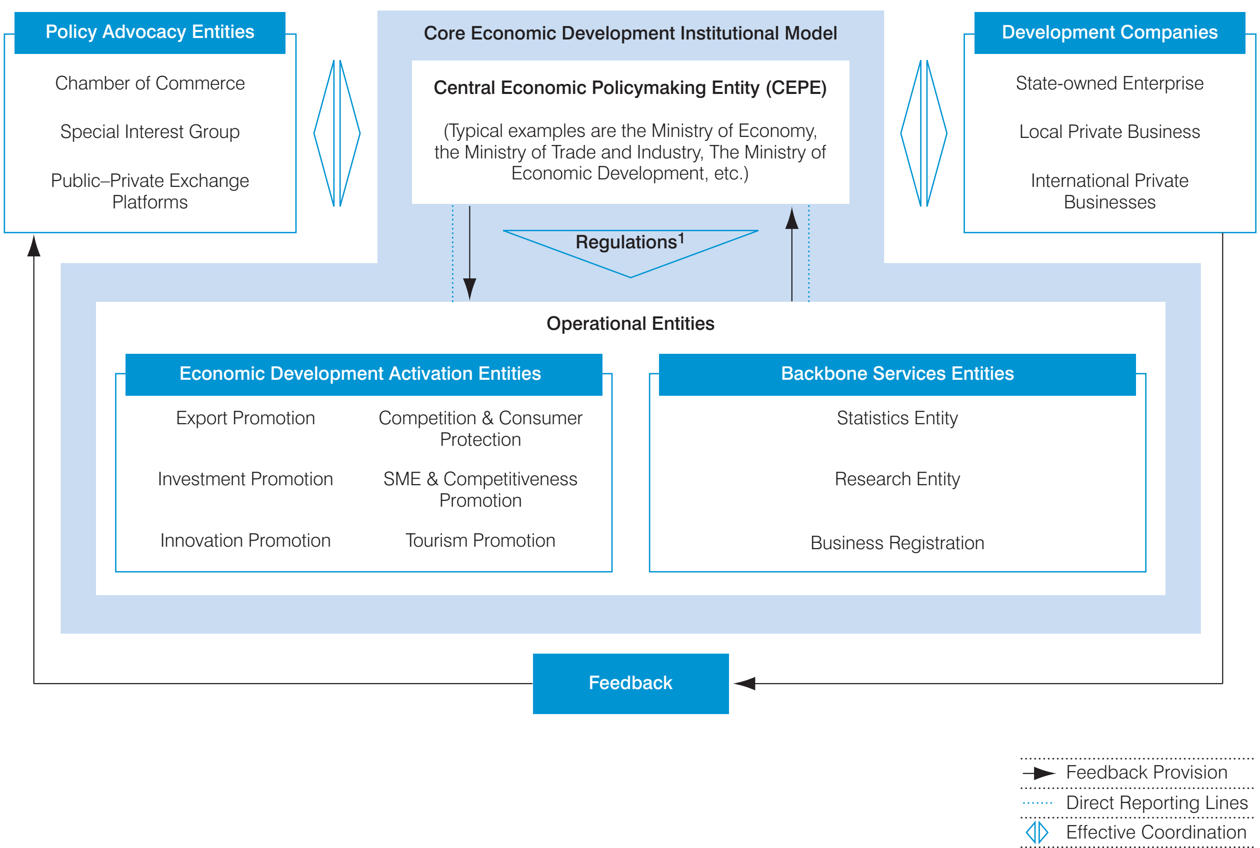
CRUCIAL NEXT STEPS FOR DIVERSIFICATION

The plans and ambitions of a truly diversified economy require two significant steps in order to succeed: institutional regulatory reform and workforce development initiatives. Regarding the former, institutional regulatory reform necessitates a central economic policymaking entity (CEPE) to monitor and guide the national economy, including areas such as investments, exports, and innovation.[12] This body, typically a ministry of trade or ministry of economy, has direct responsibility for economic growth and control over operational entities within the country. Acknowledging that countries adopt varying levels of interventionism, the CEPE establishes regulations, liaises with the private sector, sets overarching economic policy, and disseminates reliable information (*see Exhibit 5*).

The CEPE is a chief economic orchestrator, and its success hinges on developing the right capacities and staff competencies. In addition, it must coordinate with other institutions, in particular a macroeconomic management framework comprising fiscal authorities and monetary and financial authorities, including financial sector regulators, central banks, and other entities to ensure national stability as part of a global economy. Several countries, including Singapore, adopted successful institutional reform processes that concluded in the 1990s, positioning these economies for more stable growth.

Exhibit 5
Framework for a Central Economic Policymaking Entity

COMPREHENSIVE INSTITUTIONAL MODEL FOR ECONOMIC DEVELOPMENT



[1] Regulation activities are performed by the CEPE and/or operational entities within the economic development institutional model.
Source: Booz & Company

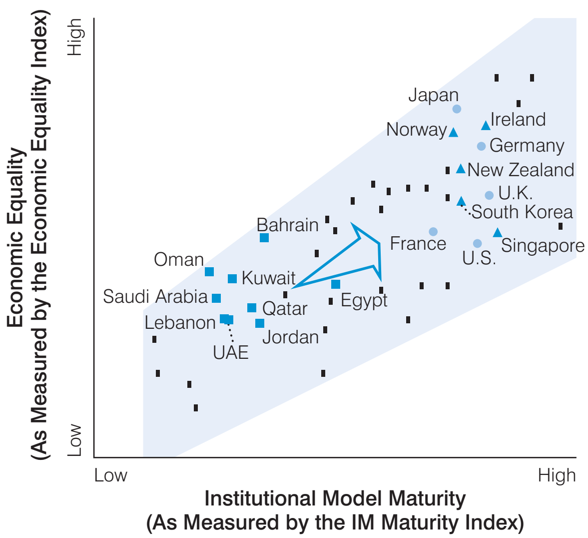
Booz & Company research shows that strong institutional models correlate with economic prosperity and equality (*see Exhibit 6*).

In addition, demographic trends will play a crucial role in any diversification strategies. Diversification is not just an economic challenge—policymakers need to look at human capital as the pivotal resource in this equation, requiring potentially large-scale shifts in education policy and labor-force development.

Emerging markets such as India and Nigeria (as well as a number of other African countries) have relatively young populations compared to those in more developed economies. This represents a significant opportunity for these countries in the form of a demographic dividend. In order to reap this dividend, however, policymakers in these countries will need to establish basic education and workforce-development initiatives. Moreover, they must invest in the necessary hard and soft infrastructure—ranging from transportation and technology to healthcare and social programs—to generate the maximum benefits from an upgraded and educated workforce.

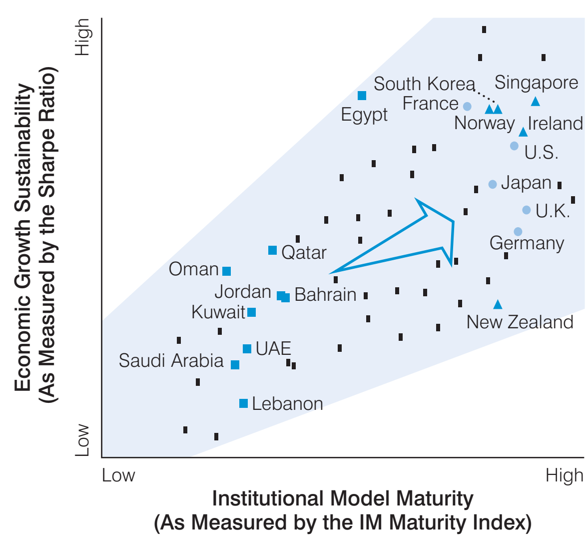
Exhibit 6
Strong Institutional Models Correlate to a Sustainable Growth Economy

INSTITUTIONAL MODEL DEVELOPMENT VS. ECONOMIC EQUALITY (1974–2005)



Intercept > 0	$y = 4.2765^{(1)}x + 58.549^{(2)}$ $R^2 = 0.657$
Intercept = 0	$y = 23.1337^{(1)}x$ $R^2 = 0.8906$

INSTITUTIONAL MODEL DEVELOPMENT VS. ECONOMIC GROWTH SUSTAINABILITY (1974–2005)



Intercept > 0	$y = 0.3360^{(1)}x + 0.3438^{(2)}$ $R^2 = 0.5480$
Intercept = 0	$y = 0.4467^{(1)}x$ $R^2 = 0.9237$

▲ Transformation
■ MENA
● G7
▪ Illustrative Data

[1] Indicates a statistical significance at a 99% confidence interval.
[2] Panel-data regressions using the General Method of Moments (GMM) showed visible improvements to the overall adjusted goodness of fit. Additionally, diagnostic checks and a collection of regressions run with an extensive array of control variables asserted that the found relationships are both statistically valid and reliable.
Note: The Composite Economic Equality Index takes into account economic freedom, environmental performance, and income equality; the Sharpe ratio is a proxy of economic growth sustainability; and the Maturity Index is computed based on the extent to which a country's model adopts 26 guiding principles.
Source: WDI; Economic development-related entities' official publications and websites; Heritage Foundation and *Wall Street Journal*; Yale University and Columbia University; Booz & Company analysis

CONCLUSION

A risk-management approach to economic development should seek to minimize the vulnerability of individual economies to exogenous events and advance risk-adjusted real GDP growth, particularly in resource-rich developing economies. A key element of this risk-management philosophy is diversification in all facets of a national economy—not only across a range of sectors but across other dimensions as well, specifically labor markets, export activity, enterprise base, focus of investment capital, and leveraged consumption, among others. Such measures will require a strong institutional framework and a range of education and workforce-development initiatives.

This kind of comprehensive diversification is not simple to conceive or implement, but compelling evidence shows that it will yield substantial dividends in the form of sustainable, durable, long-term economic development. More important, developing countries have a limited window in which they can implement these measures. The global economic system is overly complex and becoming more so by the day. It may be difficult to begin this process now, but it could well be impossible in the future.

Endnotes

[1] The complete list of 28 countries includes resource-rich nations of the GCC (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates); along with several others in Africa (Angola, Botswana, Ghana, and Nigeria); Latin America (Ecuador and Venezuela); Eurasia (Indonesia, Russia, and Mongolia); the G7 (Canada, France, Germany, Italy, Japan, the U.K., and the U.S.); and transformation economies around the world (Hong Kong, Ireland, New Zealand, Norway, Singapore, and South Korea).

[2] Ireland's Economic and Social Research Institute.

[3] "Too Big to Bail? Bank Concentration in the Developed World," Celent, June 2009.

[4] Large, conglomerate family-controlled firms in South Korea characterized by strong ties with government agencies.

[5] "The Death of Daewoo," *The Economist*, August 1999 ,19.

[6] Eurostat; Booz & Company analysis.

[7] Company website; Ernst & Young; Booz & Company analysis.

[8] Global Insight database; World Bank development indicators; Booz & Company analysis.

[9] Official statistics bureaus of sampled economies; UAE Ministry of Economy; Saudi Arabian Monetary Agency (SAMA); Kuwait Central Bank; Oman Ministry of National Economy; Bahrain Central Bank; Qatar Ministry of Planning; Booz & Company analysis.

[10] SAMA; Global Insight database; Booz & Company analysis.

[11] For more detail, see Richard Shediac, Rabih Abouchakra, Chadi N. Moujaes, and Dr. Mazen Ramsay Najjar, "Economic Diversification: The Road to Sustainable Development," Booz & Company, 2008.

[12] For further reading, see Richard Shediac, Chadi N. Moujaes, Dr. Mazen Ramsay Najjar, and Rasheed Eltayeb, "Institutional Development: A Catalyst for Economic Prosperity and Equality," Booz & Company, 2009.

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