GLOBAL SCENARIOS 1992 -

Shell, Global 2012-2020 Scenarios

"We have it in our power to begin the world all over again.

A situation similar to the present hath not appeared since the days of Noah until now. The birthday of a new world is at hand."

- Tom Paine, 1775

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INTRODUCTION: WHAT ARE SCENARIOS AND WHY DO WE USE THEM?

The Global Scenarios for 1992-2020 are a set of plausible and challenging stories about what might happen in the next thirty years. They are not forecasts; that is, they do not predic what will happen by extrapolating from the past, but instead offer two very different stories c how the future might look.

These stories serve three major functions. First, they help us prepare for discontinuities and sudden change. Unlike forecasts, which can sometimes lull us into thinking we can predict the future, scenarios mirror the unpredictable, world-changing events that we must be ready to face, even if we cannot know what they will be. Scenarios help us to anticipate (by asking 'what if' questions) and to recognise and interpret important events and new developments.

The scenarios also help create a common culture, or language, through which the future can be imagined. In a group of companies as decentralised as the Royal Dutch/Shell Group in which the operating companies have a great deal of autonomy, scenarios create unifying themes and images and help foster group cohesion.

Third, scenarios challenge the mental maps we all hold. These maps in themselves are stories about reality – but they affect which opportunities we notice and what strategies and actions we undertake. In the 1970s, industry analysts were not prepared for the jump in oil prices; nor did the mental maps associated with continually rising prices prepare people for their subsequent fall. When our perspective changes, our view of what is possible also changes. There was a time when people thought it was physically impossible to run the mile in under four minutes. When Roger Bannister did it, he broke a mental barrier as well as a physical one. By challenging our mental maps, scenarios help us envision and create new possibilities.

As the Shell team developed the scenarios and talked to world business leaders, politicians, journalists, and educators, our mental maps changed significantly. We began to see

that a profound shift is taking place all around us. These scenarios present two different responses to that shift – two different futures. By considering alternate futures, we begin to see that the future is shaped not only by the past, but by what we think is possible and by the choices we make.

1. A NEW WORLD: THE LIBERALISATION REVOLUTION

We are at a moment of revolutionary change in world history. Who would have imagined, even a week before it happened, that in Russia the Communist Party would become illegal? The Soviet Empire has collapsed, and with it the assumptions and framework of international affairs since the Second World War. But something else changed, of which events in the Soviet Union and Eastern Europe are the biggest, but by no means the only, symptoms.

All around the world, the realisation has emerged that authoritarian political regimes and centrally planned economies simply do not work. This is a change in political world view of rare magnitude, perhaps of similar importance to the changes two hundred years ago symbolised by the American and French Revolutions, except that this time technology and communications may mean that this revolution will be truly global.

Rich countries are seeing far-reaching privatisation and deregulation, for example in the UK, the US, Japan, Australia, and France. But changes have been even more dramatic elsewhere. Virtually all of Latin America is privatising and deregulating. Ten years ago, only a handful of Latin American countries were democracies; today only a handful are not. The



- Political liberalisation has resulted in free elections and civilian governments throughout Latin America and the Caribbean (except, as yet, Cuba and Haiti); in almost every Eastern European country; in several republics of the former USSR; in the Indian sub-continent, in parts of East Asia (South Korea, Taiwan, Philippines); and in Africa (Zambia, Botswana, Benin). Democracy has been strengthened in Spain and Turkey, and there has been progress towards political pluralism in South Africa and in many countries of West Africa.
- ▲ Economic liberalisation Developed market economies have been further liberalised through far-reaching privatisation (UK, France, Germany, Japan, Sweden, Australia), deregulation (US), and lowering of trade barriers (EC, NAFTA). Far-reaching liberalisation has occurred in former communist countries (especially Poland and Hungary), in China, and throughout Latin America (especially Chile, Argentina Mexico). More selective or cautious liberalisation has occurred in Asia (Malaysia, Indonesia, South Korea, India, Pakistan, Sri Lanka); in sub-Saharan Africa (Ghana, Zambia, Mauritius); and in the Middle East and North Africa (Turkey, Morocco, Tunisia, Egypt)

movement to economic liberalisation has been very strong in China and India, the world's two most populous countries. In Africa, we can see the beginnings of change as many countries introduce free elections and economic liberalisation. And in South Africa apartheid is being dismantled.

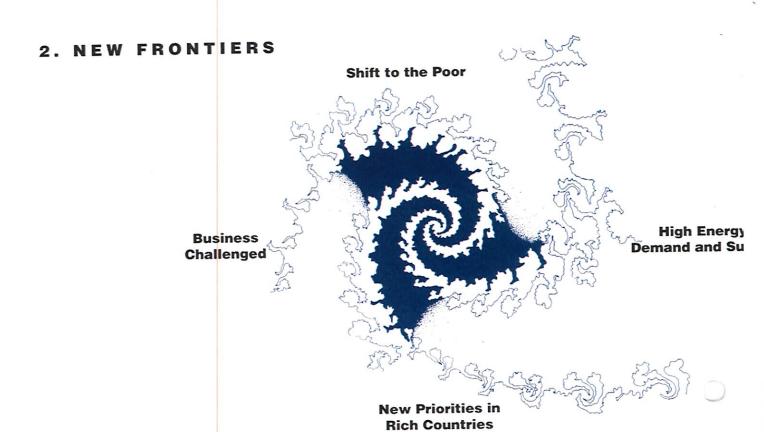
But liberalisation can evoke two responses. Individuals, nations, and companies can seize the opportunities; if they succeed, further hope and expectations will generate their own economic and political pressure towards further liberalisation, setting up a positive feedback loop. On the other hand, the threats posed by liberalisation to entrenched interests, to the losers, and to national, religious, and cultural identity, may lead to a predominant atmosphere of fear and resistance, and a negative feedback loop.

Liberalisation may continue and spread into a world of rapid and sometimes unsettling change with vast new, highly competitive markets opened up. We call this scenario

Liberalisation: Two Responses



New Frontiers. Or it may be resisted and restricted – a world of divisions and barriers, with limited room for manoeuvre. This scenario is called Barricades.



New Frontiers is a story of growth, turbulence, and change. Liberalisation – both economic and political – creates enormous upheavals as markets and societies dismantle longstanding barriers, and poor countries begin to claim a larger role for themselves on the world stage.

Virtuous Circles in Development



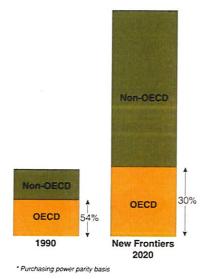
Shift to the the poor. Liberalisation leads to dramatic economic growth in poor

"The people in the poor countries are leading the way in this market revolution. The push toward this new frontier is not coming from the Western democracies – the developing countries are leading this worldwide revolution. This push, this revolution, will fundamentally change the world."

 Roberto T. Alemann, former Economic Minister of Argentina countries. The rate of economic growth rises from an average of 3% in the 1980s to 5-6% – a growth rate like that of the 1960s and 1970s. By 2020, developing countries account for 70% of world output, compared with less than half in 1992. Huge, new, risky opportunities for trading and investment emerge. Companies from developing countries enter global markets, and many industries shrink in rich countries as they

grow in poor ones. Growth is much faster outside the OECD than inside, and this leads to a high level of foreign investment in developing countries.

World GNP*

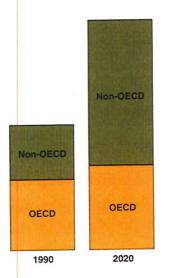


High Energy Demand and Supply. Given the rapid economic growth in New Frontiers, world demand for energy, chemicals, and metals also grows. By 2020, the number of vehicles in the world has doubled, with almost all this growth occurring in developing countries. Although the growth of the global economy increases the demand for energy, energy growth is slower than economic growth because of efficiency improvements. Increased competition, faster technology transfer, and reduction in energy subsidies result in more efficient cars as well as more efficient electricity generation. The energy to meet this demand comes from a variety of sources:

increased oil production, particularly in OPEC countries; coal to power the development of India and China; rapid expansion in the production and distribution of gas; unconventional, heavy oils from countries such as Venezuela, Canada, and Russia, extractable by the twenty-first century at affordable costs; and the beginnings of the significant use of new, renewable sources of energy. By 2020, in many places it is possible to generate electricity more cheaply through photovoltaics and other renewable sources than from fossil fuels.

In spite of all these advances in energy efficiency, environmental pressures are severe in this era of rapid growth. Global agreements on environmental issues are both more

World Demand for Liquid Fuels



necessary and harder to achieve, in part because developing countries argue that they should be allowed a fair chance for economic development before being burdened with international environmental standards. Then as they become wealer, developing countries begin to raise their own environmental standards, particularly to combat local pollution. In many cases, these countries leap from very low to very high standards through taking advantage of the technology and experience of rich countries.

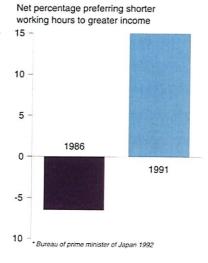
In New Frontiers, global problems are addressed co-operatively. For example, the environment, which is a major global concern, becomes the catalyst for many new

multinational projects that further weave national economies into a complex system of interdependence.

New Priorities in Rich Countries. The shift of world markets towards developing countries is accompanied by deep and painful structural reform in rich countries as economies refocus from manufacturing to more knowledge-intensive activities. Rising

prosperity has coincided with the deterioration of public services and societal cohesion, and

Changing Preferences of Japanese Workers*



these developments, plus a new focus on social issues, lead to a subtle but fundamental change. People in rich countries want more and better goods and services; but beyond this, they also want a better quality of life. They demand more control over their working lives and insist on being consulted about developments that affect them. Citizen movements spring up at the grassroots level with projects ranging from environmental concerns to demands for public access to new communication networks. A new spirit and definition of community begins to emerge, with citizens willing to make greater sacrifices for the common good

if they can be shown that these sacrifices will be used effectively for something they value, such as the environment.

Business Challenged. In New Frontiers, business is challenged from a number of directions. The high demand for investment and the emergence of a truly global capital

"Today there is only one entity whose effort to create stability in the world matches its self-interest. That entity is a corporation acting globally."

- Ruzaburo Kaku, CEO Canon, Japan

market increase the cost of capital.

Reduced barriers to entry mean many new local and international competitors.

Companies that cannot adapt quickly will flounder. Those that resemble organisms rather than machines will be better able to

mobilise the full potential of their people. Employees insist on being given more autonomy and greater responsibility, and often choose quality-of-life (for example, through shorter

working hours) over increases in salary. Other stakeholders also insist on having a larger voice in decision-making. Non-executive directors become more assertive. Customers

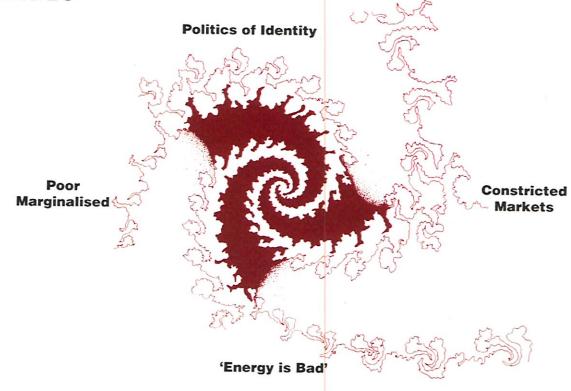
"Values provide a common language for aligning a company's leadership and its people."

- Robert Haas, CEO Levi Strauss & Co., USA

demand high-quality products that meet their specific needs, and local communities expect private companies to take on greater social responsibilities.

By the end of the scenario period, the world is a very different place. In many developing countries, success has bred success – better education has resulted in lower birth rates, economic growth has led to environmental reform movements, and greater liberalisation has supported a drive towards democracy. Increased communication makes it easier to discover and discuss areas of common interest. In New Frontiers, rich and poor alike recognise their economic, social, and environmental interdependence.

3. BARRICADES



In Barricades, people resist liberalisation because they fear they might lose what they

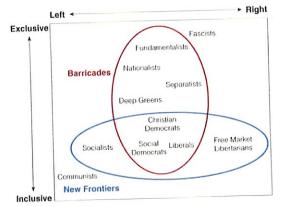
"barricade n. hastily erected rampart across street etc. of barrels, carts, stones, furniture, esp. during revolution; barrier (lit., or fig.) [F (barrique f. Sp. barrica cask f. as barril BARREL)]"

- The Concise Oxford Dictionary

value most – their jobs, power, autonomy, religious traditions, and cultural identity. Th resistance leads to an increasingly divided world of rich against poor, region against region, insiders against outsiders, and ethnic and religious groups against their neighbours.

Politics of Identity. Many economic and political vested interests are deeply threatened

Politics of Identity



by liberalisation and attempt to contain it.

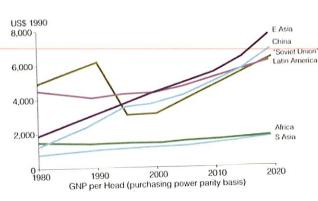
Where liberalisation is tried, expectations are not met quickly enough. People may believe that liberalisation will make them better off in the long run – but the long run is just too long, and in the meantime, the required sacrifices are too great. In this atmosphere, the traditional left-right political debate splinters into a number of compet-

ing nationalistic, ethnic, religious, and single-issue groups, making coalition-building difficult.

Constricted Markets. In Barricades, many countries insist on developing or maintaining their own brand of capitalism, with markets that are only partially open to new entrants.

Development is inward-oriented, and often liberalisation is limited to insiders only. While the

Developing Country Growth



business environment is competitive, this competition is national or regional rather than global, and trade agreements are bilateral rather than multilateral. Under these conditions, some developing countries succeed, but many fail.

For outsiders, business opportunities in developing coun-

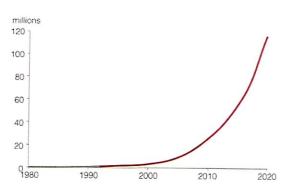
tries are difficult to develop. Access often depends on personal, family, or government ties. Some countries open only the least desirable opportunities to foreigners. In key industries,

like energy, control often remains with state-owned companies. Many development projects are slowed by 'NIMBYism' ('Not In My Back Yard'). New sites for nuclear or coal plants are difficult to find, for example, and the transport sector in rich countries is stifled by local resistance to new roads and rail lines.

'Energy is Bad'. In Barricades, competing factions create an atmosphere of threat and hostility in many regions of the world. In the Middle East, tensions between the key oil producing countries lead to difficulties within OPEC and weak oil prices. Together with the need for military expenditure, a suspicion of foreign companies, and a reluctance by foreigners to invest in the Middle East, this price weakness means that little new capacity is built. Meanwhile, the US becomes increasingly dependent on oil imports, and Europe relies more heavily on imports of gas from Russia.

Inevitably, a crisis blows up in the Middle East, and oil prices rise sharply. While this

Electric Vehicles



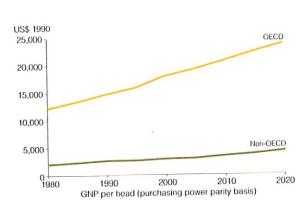
price peak is relatively short-lived, the reaction in the OECD is profound. New political alliances demanding energy self-sufficiency and environmental protection pass draconian regulations, for example, mandating increased use of electric vehicles and imposing 'green tariffs' against developing countries that export

'dirty' products. A feeling that 'energy is bad' leads to crippling restrictions not only against developing country goods, but also against OECD industries that produce or use energy.

Poor Marginalised. By 2020, the world is deeply divided, with widespread poverty and, as a result, environmental degradation in poor countries. The widening of the rich-poor gap domestically and internationally is ignored by most of the rich. The US, Japan, and the EC

are each defensive in fostering their own businesses and enhancing their own competitiveness. But while this focus on narrow self-interest means continuing friction, the rich countries

Rich v Poor



perceive the most serious threats as coming from the poor, a perception which helps to keep them together and prevents retreat into exclusive trading blocs.

After the turn of the century, growth in the rich countries gradually declines, and there is no boost from demand in poor countries. The labour force is

decreasing, environmental and social costs reduce productivity, and the ageing population means that savings and investment rates are both low. Barricades have sheltered the rich against the problems of the poor – but in the long run, the problems of the poor cannot be separated from the world of the rich.

"We face a great paradox. On one side, Latin
America is opening up to international trade at
a great social cost. On the other, industrialised
nations, including the EC, shelter behind
protectionist measures that hamper our growth
and development."

President Patricio Aylwin, Chile

The barricades thrown up between and within rich countries; between poor countries and their neighbours; and, most importantly, between rich and poor, offer protection in the short term and provide more time to adjust to the consequences of globalisation and change. But the emphasis on national interests has left international institutions weak, so that a co-ordinated

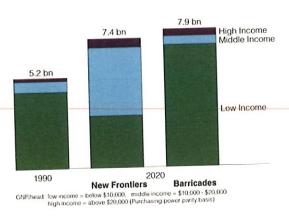
response to international problems seems impossible. Nations cannot agree on what to do about global concerns, and even within nations, conflicting factions block solutions and frustrate compromises. As neglected problems worsen and tensions increase, there is serious doubt whether the barricades can hold.

IMPLICATIONS

We are in the midst of worldwide, revolutionary change, whose outcome is uncertain. Part of that uncertainty has to do not just with events but with human attitudes and reactions towards those events. People can react with hope and seize the opportunities of New Frontiers; or, as the Barricades scenario describes, they can react with fear and try to erect barriers to liberalisation in order to protect what they value. Of course, in any scenario people will react in both ways – but which reaction will dominate?

In Barricades self-interest is narrowly defined, and horizons are limited. People feel that the best way to advance their interests is to protect themselves and their own families, nations, religious groups, and companies. In response to liberalisation, they erect physical barricades to stop immigration, for example; commercial barricades to keep out foreign goods; cultural barricades to protect national or religious identity; and mental barricades, which insulate against the necessity to think beyond their own interest groups.

World Population GNP per Head



Other reactions are possible. New
Frontiers implies a willingness to look at
self-interest more broadly, both in time –
to be prepared to suffer the short-term
consequences of the inevitable upheavals
in order to benefit from the new
opportunities – and in space – to accept
the challenges of an interconnected world.
This heightened interconnection and

interdependence will require more collaboration among governments and non-governmental organisations, which will mean an enlarged view of national interest and sovereignty.

Companies will have a wider, freer playing field, but will also be expected to assume more responsibility for the health of the global community.

GLOSSARY

EC **European Community FDI** Foreign Direct Investment **GNP Gross National Product** 'NIMBY' 'Not In My Back Yard' **OECD** Organisation for Economic Co-operation and Development **OPEC** Organisation of Petroleum Exporting Countries PPP Purchasing Power Parity (an alternative measure of exchange rates derived by equating the local cost of similar baskets of goods in different countries)