

26th and 27th September 2016

KMF2016 Primer

“The transition in mindset...from the paradigm of resource ownership to one of stewardship — will be one of the greatest tests of our time.”

DYMM Paduka Seri Sultan Dr Nazrin Muizzuddin Shah
Opening Address, Khazanah Megatrends Forum 2014

THE ROLE OF GEOGRAPHY IN MALAYSIAN ECONOMIC HISTORY

Much of Malaysia's economic history can be viewed via a geographic lens



15 th to 19 th century Trade	20 th century Resource Production	21 st century Manufacturing
 <p>A</p> <p>The success of Malacca and Johor-Riau are owed, in part, to a convenient location along India-China shipping lanes and proximity to spice plantations.</p>	 <p>B</p> <p>Tropical climate, resources (tin, and later oil), and appropriate soil (for rubber and oil palm, introduced by the British) stoked British colonial intent</p>	 <p>C</p> <p>Proximity to industrialised East Asia in the 1970s allowed manufacturing to be outsourced, in part, to Malaysia, generating a strong electronics export cluster.</p>
European Demand	British and Global Demand across Multiple Commodity Cycles	US Demand

- **The historical importance of Geography** - Malaysia's economic history has been, in large part, a consequence of her geography be it location, environment (endowments) or demographics.
- **Geography enabled Malaysia to meet global demand** - Malaysia's geography allowed it to meet global demand, be it European trade demand in the 15th to 19th centuries, 20th century global commodity cycles, and American electronics demand in the 20th century.
- **The role of economic and political stewards** - Despite geography's key role in Malaysia's history, economic and political actors still had to be wise enough to exploit opportunities and create adequate institutions.

WHY GEOGRAPHY MATTERS

Geography can impact the wealth of nations through 3 main channels: national character, the economy and disease

IMPACT TO NATION

GEOGRAPHY

National Character



"People are... more vigorous in cold climates. The inhabitants of warm countries are, like old men, timorous; the people in cold countries are, like young men, brave"



Montesquieu

Economic

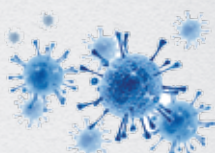


"...the rise of early agriculture in Eurasia relative to elsewhere was due to the fact that of the world's 14 species of valuable domestic animals, 13 were Eurasian"



Jared Diamond

Disease



"Malaria reduces growth rates of sub-Saharan Africa by 1-3% a year"



Jeffrey Sachs

The fundamental notion is that Geography can impact human behaviour. This can range from eating behaviour, choice of public policy, and at the extreme, Revolution

IMPACT TO HUMAN BEHAVIOUR

GEOGRAPHY

EATING



Eskimos eat more animal fat than people living in more tropical areas, to keep their bodies warm

POLICY MAKING



Singapore choosing export-oriented industrialisation due to lack of natural resources and population size

REVOLUTION



Climate change and drought drove up food prices leading, in part, to rising tensions and the Arab Spring

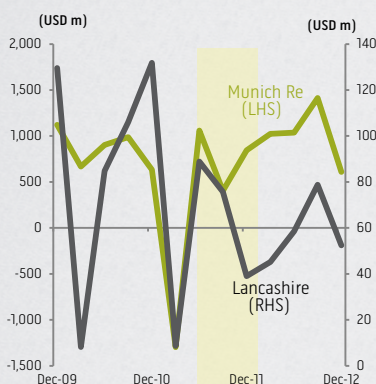
- **The overarching reach of Geography** - Geography, whether via environment, location and/or demographics, can have substantial impacts on the wealth of nations and on human behaviour.
- **Different Geography, different national opportunities** - Countries with different geographical attributes face different sets of economic opportunities. Geography typically impacts the wealth of nations via national character, the economy and disease.
- **Geography impacts all aspects of human behaviour** - Geography influences a wide range of human behaviour, such as the food we eat, the choices policymakers make, and, in some cases, the issues for revolution e.g. food prices, inequality, and political instability.

THE ROLE OF GEOGRAPHY: FIRMS ALSO FACE GEOGRAPHIC CAPTURE

Geography can determine corporate winners and losers

Tohoku Disaster, Japan

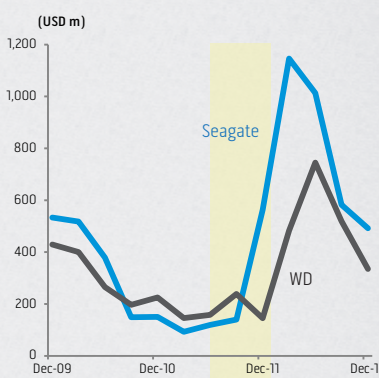
The Tohoku earthquake of 2011 caused a devastating blow to the insurance industry. Firms such as Munich Re and Lancashire Holdings saw a 304% and 93% drop, respectively, in quarterly net income from Dec '10 to March '11.



Source: Bloomberg

Devastating Floods, Thailand

In 4Q2011, due to the location of its manufacturing plant located on high ground, Seagate recaptured its market lead against Western Digital. The former saw a 302% increase in quarterly net income in 4Q2011 while the latter saw a 39% decrease.



Source: Bloomberg

Other environmental issues, such as global warming, can have both positive and negative impacts onto firms and their industries in the short and long-terms.

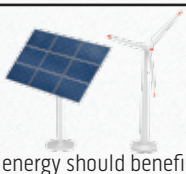
Global warming



5 - 10 Years
Short Term

50 Years
Long Term

Good



Green energy should benefit from more investment



Agribusiness in Russia/Canada benefits due to longer growing season

Bad



Policy reaction towards global warming could be bad for fossil fuels in the short term.



Rising sea levels are bad for beachfront or low-lying property (e.g. Maldives, Mauritius)

- **Geography has profound implications for firms** - Environmental disasters, climate change, demographic transitions, and other geographic impacts can create new sets of corporate winners and losers.
- **Firms need to consider positioning for the long-term** - Different industries face different sets of benefits and costs to long-term geographic impacts. Thus, it is imperative that firms consider the long-term implications of geography on their industries.
- **The short-term cannot be ignored as well** - In the short term, the shift towards 'going green' or adjusting to demographic transitions can also have strong impacts on the business logic of a given firm.

GEOGRAPHY AS DESTINY?

THE CASE AGAINST #1: INNOVATION & TECHNOLOGY, AND POLICY

Innovation & technology can break the “curse” of geography by creating alternative means to production that are less dependent upon a given environment and its constraints.

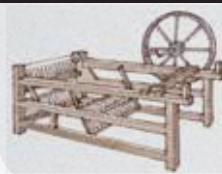
TECH + INNOVATION

LOCATION



By using a steam engine, a factory could be located anywhere - free from the constraints of geography. During the industrial revolution, the steam engine used boiling water to create mechanical motions and was not dependent upon a nearby water supply, unlike the traditional water mill.

DEMOGRAPHICS



The Spinning Jenny increased productivity by increasing the number of spindles operated per wheel. The Spinning Jenny was small, cheap, and light enough to be used by females and children, allowing for greater labour participation and less dependency on males.

ENVIRONMENT

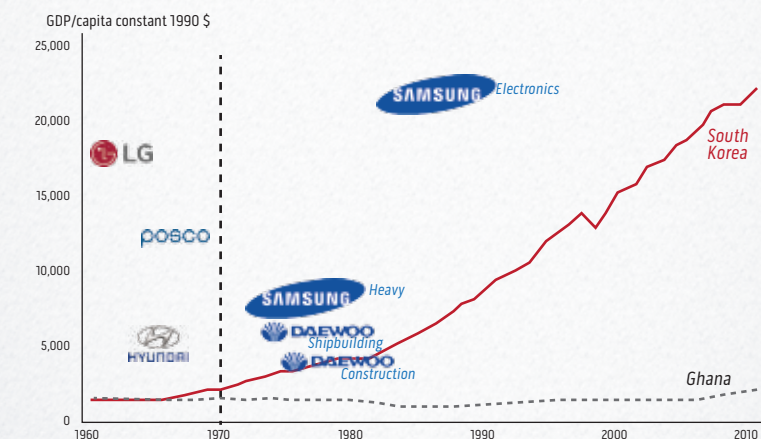


Air-conditioning enhanced productivity, especially for those in the tropics. Lee Kuan Yew explained that, ‘before air-conditioning, people in the tropics were at a disadvantage because the heat and humidity damaged the quality of their work’.

POLICY

An effective policy framework can overcome geographical constraints. South Korea was poorer than Ghana after the Korean War in 1953 and had scarce natural resources (an inherited geographical constraint). The country overcame such constraints through a robust industrial policy framework implemented in the 1970s.

Implementation of industrial policy



Source: Daron Acemoglu and James Robinson

- **Innovation & Technology, and Policy as drivers of destiny** - New inventions or innovations, as well as sound policymaking can set nations with similar geographies on widely divergent paths.
- **Innovation & Technology can overcome Geography** - Inventions such as the Steam Engine, the Spinning Jenny, and the Air-Conditioner have allowed economies to overcome the constraints of location, demographics and the environment respectively.
- **Sound policy-making key to development** - Resource-rich Ghana and resource-scarce South Korea shared similar starting points in the 1960s, but outcomes have diverged due to sound Korean policy-making.

GEOGRAPHY AS DESTINY?

THE CASE AGAINST #2: INSTITUTIONS AND CULTURE

Institutions are key at driving progress and economic growth. The same demographics in the same geography can have very different economic outcomes, depending on institutions.

INSTITUTIONS

Nogales, Arizona	
Mexico	USA
CHARACTERISTICS	CHARACTERISTICS
Average Income ↓	↑ Average Income
Life Expectancy ↓	↑ Life Expectancy
Crime ↑	↓ Crime
Infrastructure ↓	↑ Infrastructure

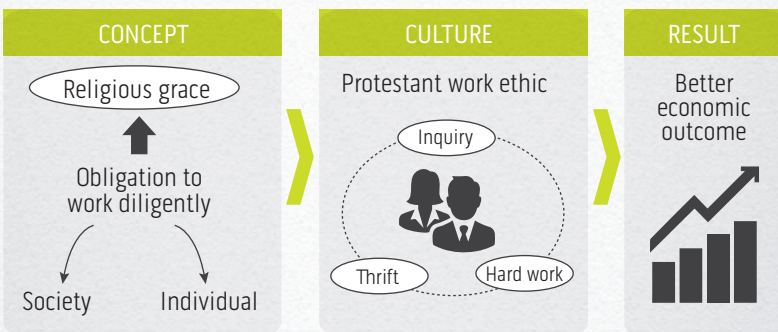
Source: *Why Nations Fail*



Other examples such as East-West Germany, and North-South Korea, are more conspicuous regarding their respective differences in culture and institutions.

CULTURE

Culture can also break the shackles of geography. Max Weber argues that Protestant societies were more likely to experience better economic outcomes because the Protestant ethic emphasised industry, thrift and inquiry. Thus, Protestant geographies developed more rapidly than non-Protestant geographies in Europe.



- **Institutions and Culture also drive the fate of nations** - Countries with similar geographies - demographics, location and resources - can have divergent outcomes if they have different institutions and culture.
- **Institutions shape economic development** - Good institutions such as strong rule of law, human and civil rights, democracy have been shown to be differentiating factors between the wealth of nations.
- **Similar geographies, different cultures, different outcomes** - One theory of culture driving economic outcomes is set forth by Max Weber, who argued that Western civilisation experienced economic dynamism due to the Protestant ethic.

The key, or true north, to all these goals and objectives — ambitious and idealistic as they are — is good stewardship.

GEOGRAPHY AS DESTINY? THE CASE FOR

TERRAIN

Specific geographies have distinctive terrains that dictate human interactions and development.

East & Central Asia



Relatively flat & open plains allowed rapid military power projection, e.g. Mongol empire, Chinese dynasties

Sub-Saharan Africa



Thick jungles prevented power projection over large distances and thus, not one country could dominate the continent.

Europe



Great rivers, mountain ranges, forests made it difficult for any one state to achieve predominance. This led to political competition amongst states.

DUTCH DISEASE



Political implication

A geography rich in natural resources will result in a consequential 'boom' that could lead to rent-seeking behaviour.



Boom Sector,
e.g. Natural Resources

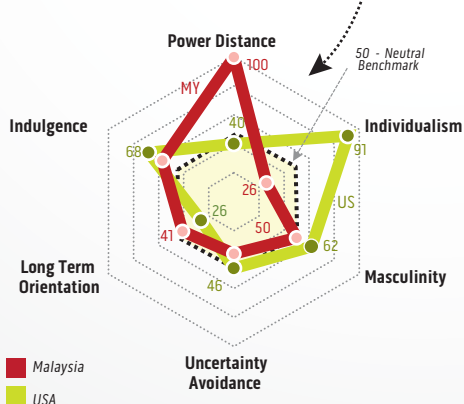


Societal implication

Economic implication



An over-concentration on the natural resources sector may lead to stagnation in the manufacturing sector due to currency appreciation.



Source: Geert Hofstede

Dutch disease and culture: Did a resource boom contribute to rent-seeking behaviour that consequently led to the 'power distance' paradigm?

While Malaysia outperforms the US in long-term orientation, it does exhibit some symptoms of Dutch Disease as exemplified by it leading the world in Power Distance.

- **Geography shapes nations and what nations choose** - Geography has the power to shape nations and human behaviour which then shapes national institutions, culture, innovation attitudes and policies.
- **Geographic terrain alone can dictate nation-building** - Different terrains and landscapes in Europe, Sub-Saharan Africa and East and Central Asia gave rise to different forms of state- and empire-building.
- **The prevalence of Dutch Disease** - The implications of Dutch Disease are three fold: political, economic and societal. Power distance, for instance, emerges in part, as a byproduct of the consolidation of rent-seeking behaviour coupled with resource-economy gains.

STEWARDSHIP: BREAKING THE LINK BETWEEN GEOGRAPHY & DESTINY

TRAGEDY OF THE COMMONS

One way to avoid geography becoming destiny is to view a given milieu as a shared commons. Yet, "common goods" face the risk of the 'tragedy of the commons'.

Overgrazing



Overfishing



When natural resources are available to all, individuals are incentivised to overuse them as they bear no private costs; this leads to depletion and thus, the tragedy of the commons.

WHY TRADITIONAL SOLUTIONS DON'T WORK...

Traditional solutions to solving the tragedy of the commons are **privatisation** and **government regulation**.

Garrett Hardin
Ecologist and
Philosopher



*"Faced with the tragedy of the commons, we can have only one rationale response: change the system. To what? ... **free enterprise and socialism.**"*



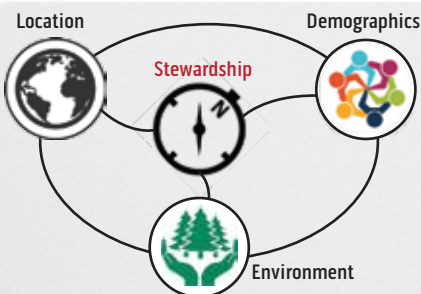
However...

Solutions don't necessarily apply to all natural resources, e.g. air and water.



Difficult to regulate or price common goods with intangible benefits, e.g. knowledge, culture, and civic/public spaces.

STEWARDSHIP AS AN ALTERNATIVE SOLUTION



"Implicit in this view is the proposition that our right to derive profits from these resources are temporary and that it is our duty to ensure that they remain undiminished and uninjured for future generations."

Sultan Dr. Nazrin Shah

- **Treating Geography as our shared commons risks the Tragedy of the Commons** - The Tragedy of the Commons arises when individual incentives overcome societal incentives for a shared commons.
- **Traditional solutions to the Tragedy are inadequate** - Free enterprise and regulation are not easily applicable to all natural resources such as air and water, as well as common goods with intangible benefits.
- **Stewardship as a solution to the Tragedy** - Creating the mindset of stewardship or trustee-ship may help solve the Tragedy of the Commons as it shifts the focus away from individual incentives towards societal incentives.

CASE STUDIES IN STEWARDSHIP: THE ROLE OF PUBLIC POLICY

If the solution were truly as simple as “think collectively,” then surely other resource-rich nations would have done the same. Yet, examples are abound globally of political and economic Dutch Disease. However, there is still hope, as exemplified by the following:

GLOBAL



The UN's Sustainable Development Goals establish a broad sustainability agenda, addressing the root causes of poverty, and the universal need for development that works for all people.

NORWAY



Established by the Norwegian Government, the USD890bn oil fund has excluded some of Asia's largest companies over concerns of severe environmental damage at Indonesian palm oil plantations.

CHINA



In response to the economic crisis of 2009, China's stimulus package contributed USD221 bn to the green agenda, almost 38% of total stimulus funds, specifically focusing on rail, wind, and electric infrastructures.

MALAYSIA



In 2010, Malaysia's Prime Minister, Dato' Sri Najib Razak introduced the New Economic Model with its three simultaneous goals of achieving a high-income, inclusive and sustainable Malaysian economy.

SABAH



The Sabah Forestry Department developed a management system plan based on forest zoning whereby about 51,000 hectares of forest land was set aside for sustainable log production and 4,000 hectares for conservation in the Deramakot Forest Reserve.

PETRONAS



Since its inception, under the Petroleum Development Act of 1974, Petronas has worked to undertake proper planning for the orderly utilisation of Malaysia's petroleum resources, so as to satisfy both present and future needs of the country.

- **The Public Sector as Steward** - Given that governments are typically viewed as trustees of the nation and of the people, the public sector should lead the way in driving stewardship via public policy decisions.
- **International organisations and foreign governments are taking the lead** - The United Nations with its SDGs, and nations such as China and Norway have prioritised sustainability and sustainable development.
- **Malaysian entities are also exemplifying stewardship** - Examples of Malaysian public sector entities setting great examples in stewardship include the government with its New Economic Model, the Sabah Forestry Department and Petronas.

CASE STUDIES IN STEWARDSHIP: THE ROLE OF THE FIRM

Stewardship implies that firms look beyond just their financial returns, focusing as well on strategic and societal returns, thereby taking a public-private-social 'tri-sector' lens

Khazanah attempts to create financial, strategic and societal value via its investments, as well as a diagonal focus on Inclusion and Sustainability

INVESTMENTS

Sustainable Development Investments



Low-cost mass housing development in the Philippines



Develops and supplies energy storage systems based on vanadium redox flow battery technology



Develops clean energy projects and provides advisory services



Provides innovative and sustainable waste management solutions

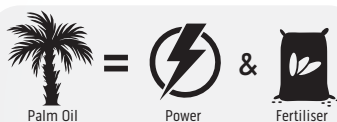


The resort uses less than 5% of total land mass available (1645 acres). Excess land is regarded as a reserve.

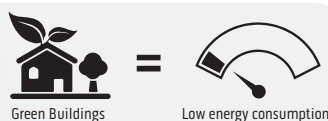
INITIATIVES

Investment Opportunities from Climate Change

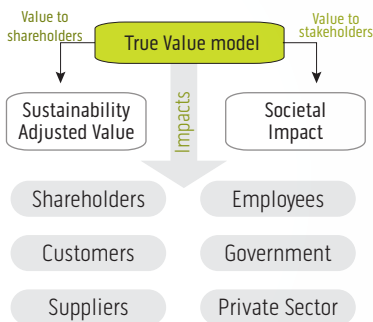
Biogas & Biomass from Palm oil used as power and fertiliser



Green buildings consume less energy



Project Chronos



KHAZANAH

KHAZANAH LINKED COMPANIES



A member of UEM
Housing for tollbooth operators in isolated areas



Short take-off and landing ports (STOLports)



Job creation and upskilling of Orang Asli community



A member of UEM Group
Pledged 10,000 affordable homes



High Speed Broadband rollout to underserved areas



Rural coverage and Digital Inclusion products



Electricity tariff structure with minimal impact to low-income groups



Catalytic projects that create jobs

- **Solving the Corporate Impossibility Trinity** - Embodying stewardship requires firms to not only generate financial returns, but also strategic and societal returns that benefit shareholders and stakeholders alike.
- **Measuring True Value** - Khazanah's Project Chronos seeks to measure not just the financial and economic values of Khazanah's investments, but also their societal impact, thus measuring a company's True Value.
- **Engaging with International Partners** - Khazanah also works with institutions such as the World Economic Forum on this theme, contributing via the Role of Business Global Agenda Council and the Economic Growth and Social Inclusion Board of Stewards.

