



Using benchmarks to transform Dubai into a global city

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Dubai is the Arab World's global city

It bridges East and West, as well as being a gateway to the MENA region

"Dubai has come of age as a global city."

WORLD CITY (GaWC) CLASSIFICATION (2012)

Alpha++

- London
- New York

Alpha+

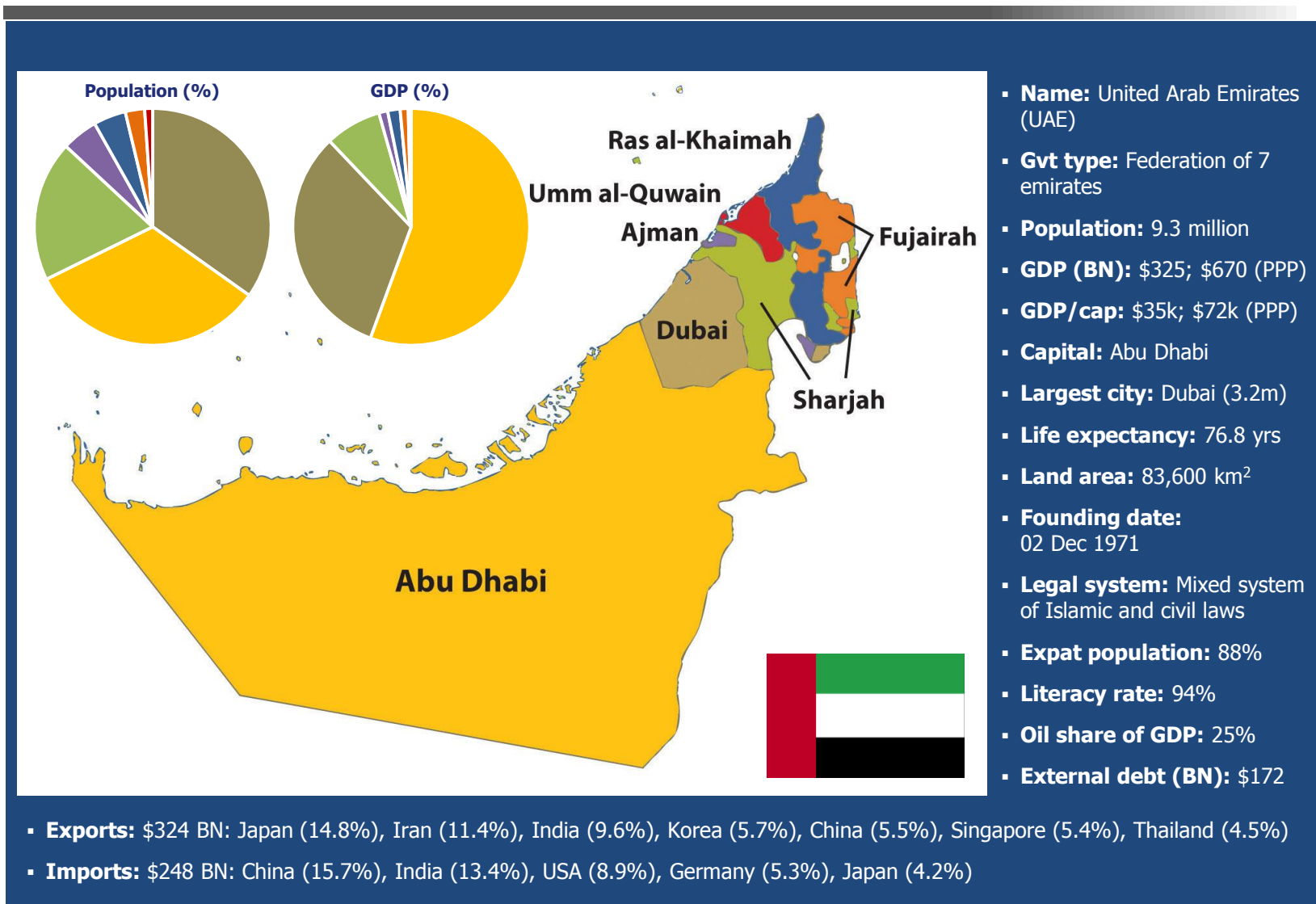
- Hong Kong
- Paris
- Singapore
- Shanghai
- Tokyo
- Beijing
- Sydney
- **Dubai**





Dubai is part of the United Arab Emirates (UAE)

It is the commercial capital of the country and preferred home for expats



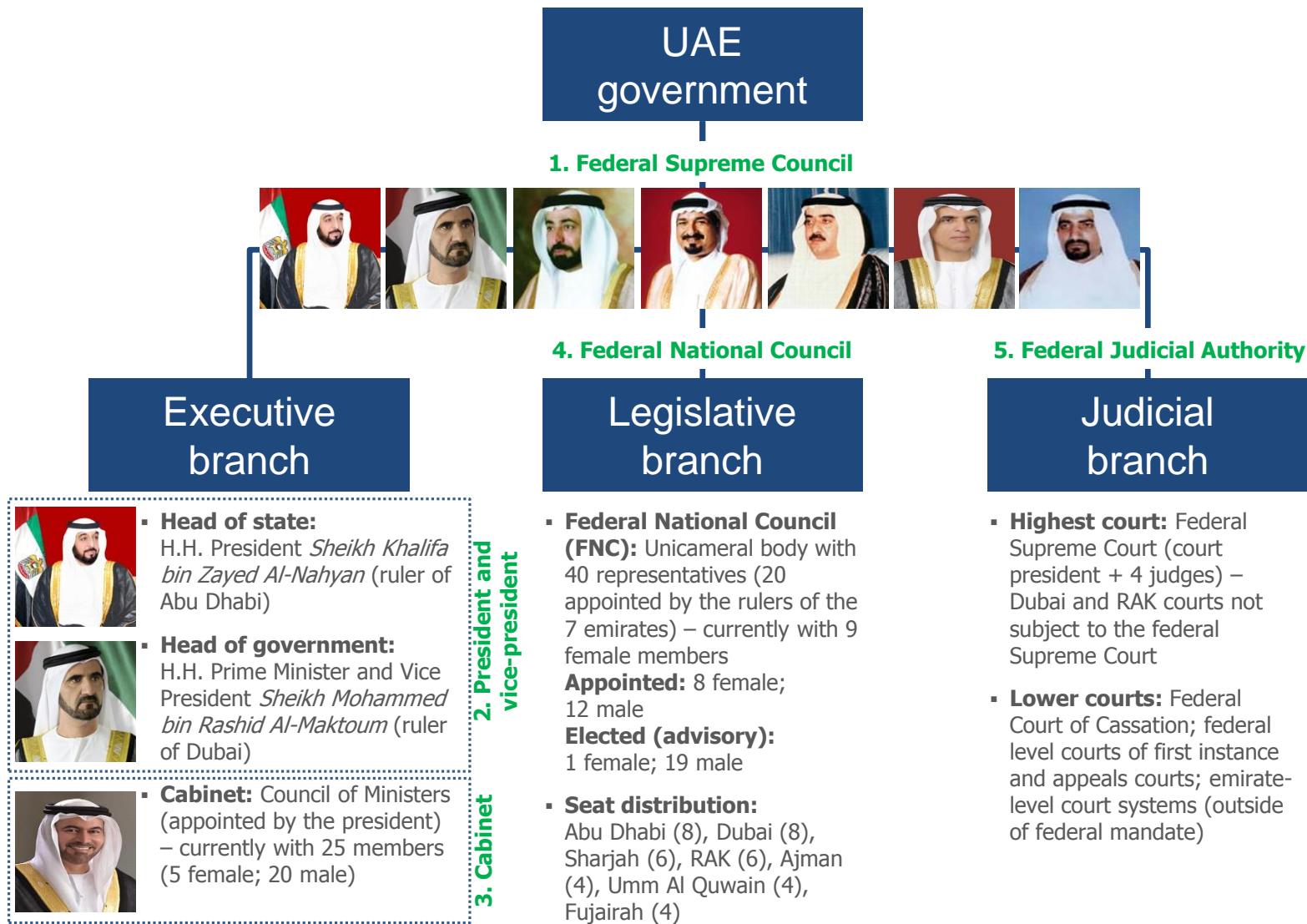
Data retrieved on 09 Aug 2016; with the exception of trade data extracted 16 Nov 2015 (except Japan imports)

Sources: CIA Factbook, IMF WEO, National Bureau of Statistics (NBS), Observatory of Economic Complexity (MIT), UN, WB Database, WHO



UAE is a federation of seven emirates

Local rulers (high autonomy) form the highest level of the government



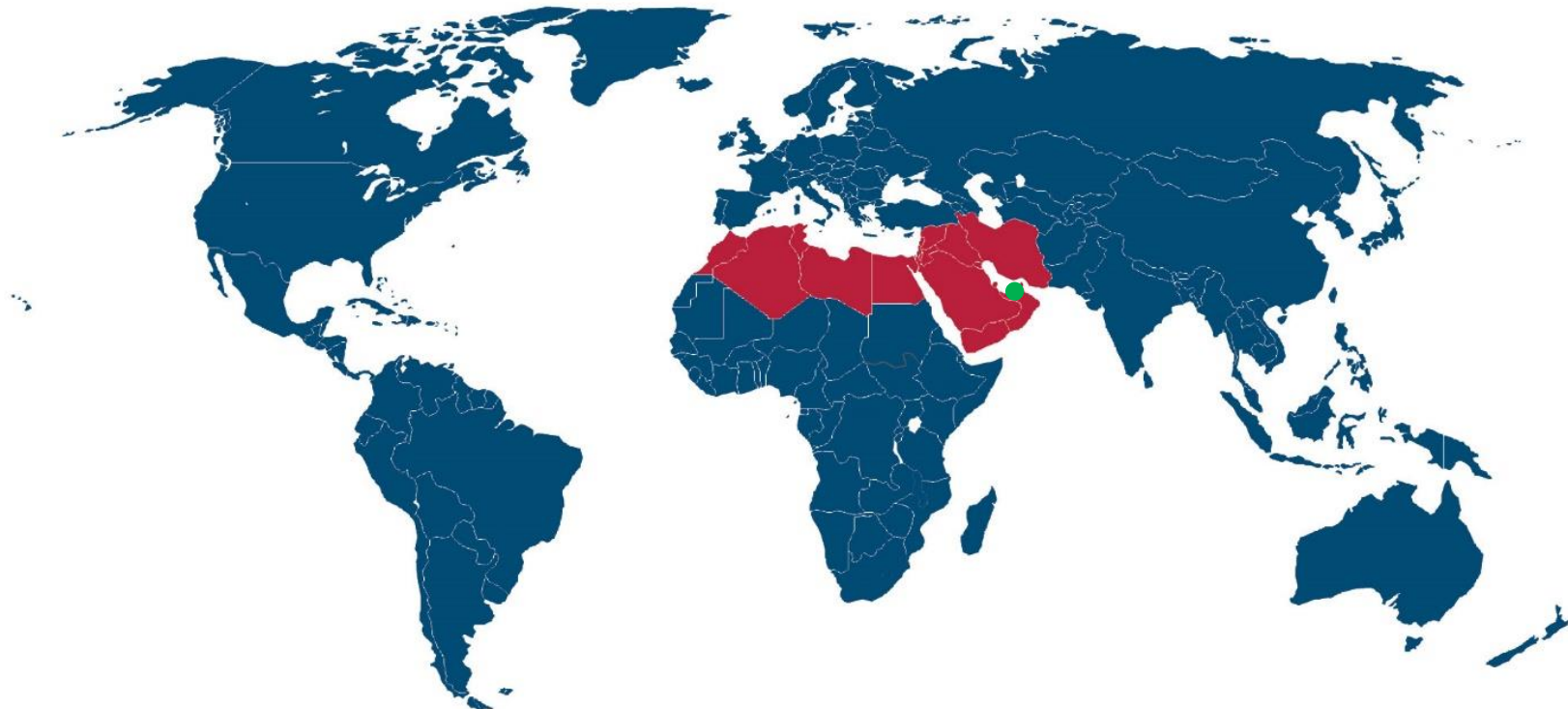


Take a step back...

Dubai is in the heart of the MENA region (Middle East & North Africa)



- Women in Saudi Arabia are forbidden from driving
- Syria is in a civil war with *Daesh* committing untold atrocities
 - A proxy war is being waged in Yemen



- Post-Saddam Hussain Iraq is a failed state
- Egypt experienced a military coup that ousted the Muslim Brotherhood from power
 - Turkey is creeping slowly to a dictatorship under Erdogan



The MENA region is in a perennial state of strife

Wars, refugees, coups, terrorist attacks are unfortunate part of life in MENA





Yet somehow in Dubia, UAE...

A global city has emerged, with a diverse and tolerant population





But it was not always that way

In fact, Dubai was an unknown sparsely-populated desert outpost in 1971

Although present-day Dubai has been inhabited since around 1095 AD, the UAE was established only in 1971. By 1975 Dubai's population was still less than 200k and did not surpass 1m until after the current ruler* took power in 2006.



Dubai's roots are as a fishing and pearling village anchored around the Creek, and later on as a trading port for the Arabian and Persian markets.



Transformation at first was slow (ca. 1990)

Dubai funnelled petrodollars into infrastructure and good governance

In 1966 oil was discovered in territorial waters of Dubai; ensuing petrodollars were funnelled to finance infrastructure development (e.g. Port Rashid), in contrast to other countries in MENA where oil wealth was hoarded and mismanaged/stolen.

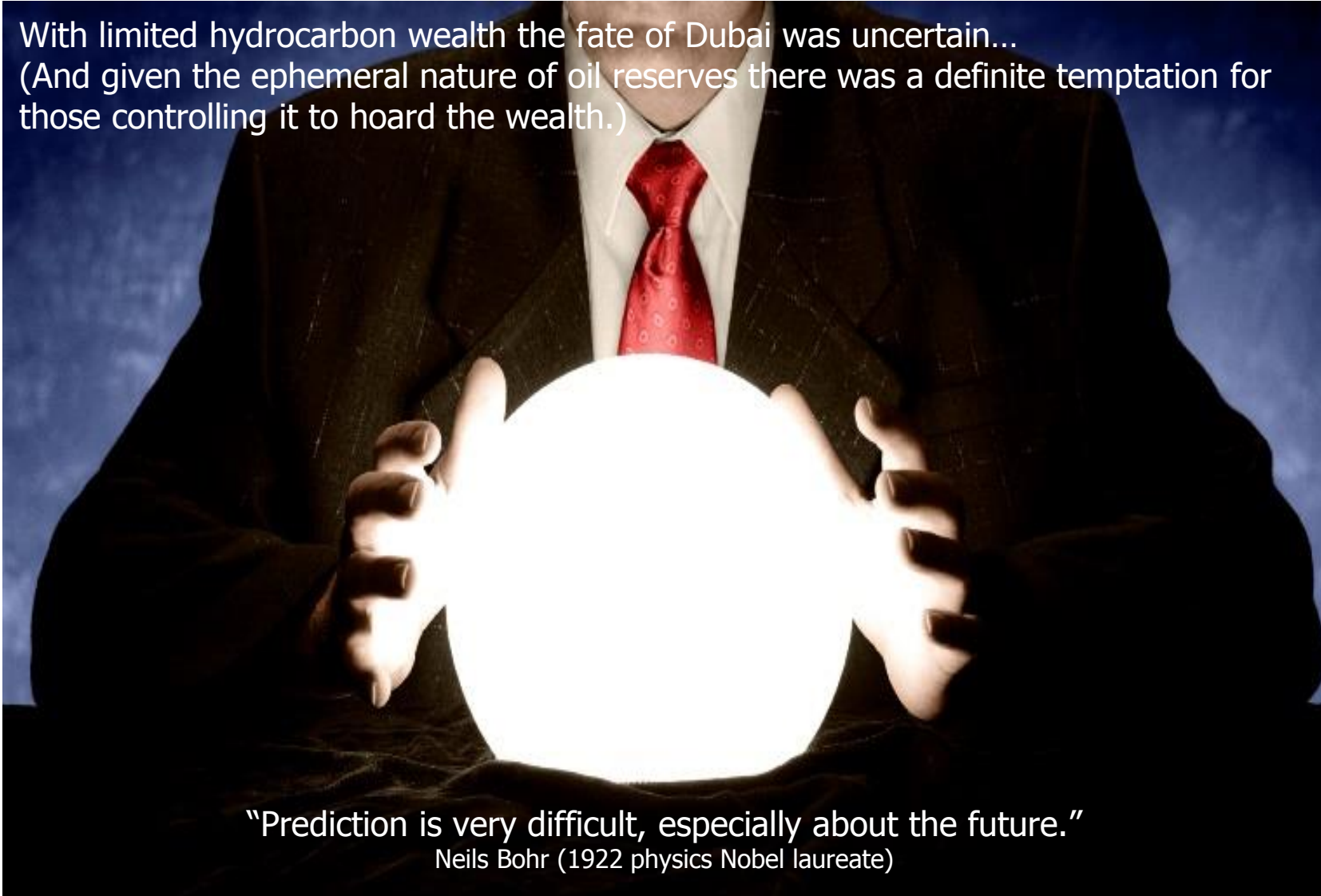




But no one foresaw what Dubai would become

Fast forward a generation or so and...

With limited hydrocarbon wealth the fate of Dubai was uncertain...
(And given the ephemeral nature of oil reserves there was a definite temptation for those controlling it to hoard the wealth.)



"Prediction is very difficult, especially about the future."

Neils Bohr (1922 physics Nobel laureate)



Today Dubai is a thriving metropolis (ca. 2015)

Within a two generations it transformed from desert outpost to global city

The growth in Dubai since the turn of the century has been nothing short of remarkable, with the emirate transforming into a global metropolis on par with the world's great cities.





So how did Dubai manage to achieve this?

Hydrocarbon wealth is only an indirect driver of Dubai's success

In spite of impressions, Dubai's wealth is not based on oil. Peak oil (25% of GDP) has already passed (1980s); today it accounts for just ~2% of the economy.



Dubai's oil reserves are small and not expected to be exploitable in the near future – the vast majority of the UAE's hydrocarbon wealth is located in Abu Dhabi.



Bold government policy behind Dubai's ascent

Dubai chose a path of good governance, benchmarking and being brash



UAE federation allows each emirate to pursue its own development path, but within a national framework. Dubai chose to “specialise” as its gateway to the world.

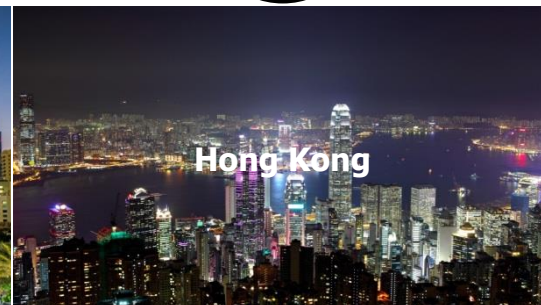
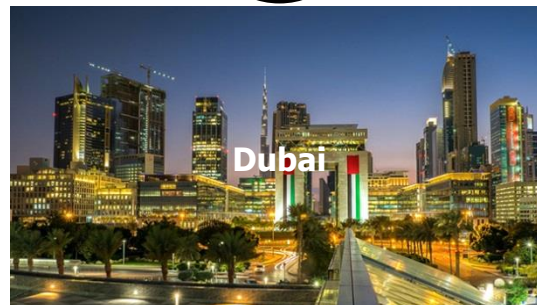
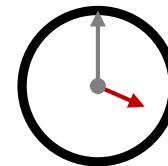
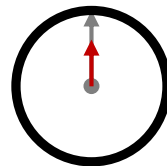
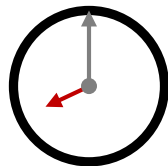
Sheikh Rashid (Sheikh Mohammed's father) began with an ambitious vision to transform Dubai into a global city – so he had to be bold and audacious. Sheikh Mo. continued with the vision and doubled down on the “go big or go home” attitude. Policies are taken to build brand Dubai, rather than simply as a NPV decision

The government structure allows for decisive actions that can be swiftly & efficiently executed. Thus the political hurdles for Dubai's development goals are muted.

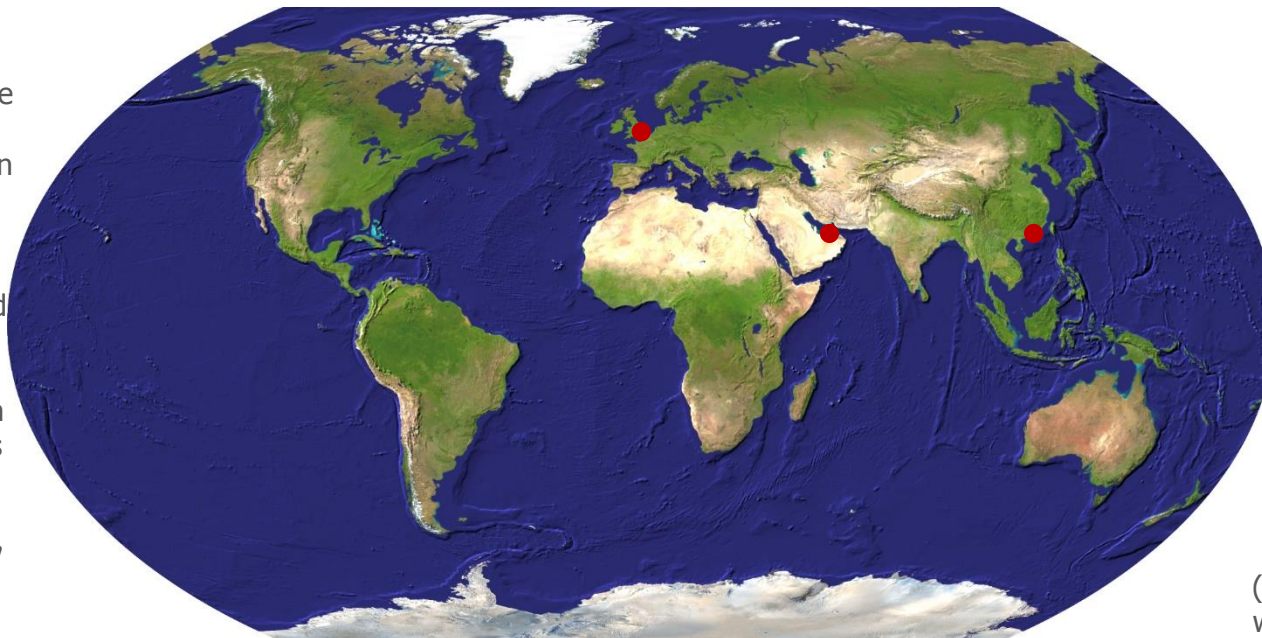


Leveraging its strategic location

A natural bridge for Europe and East Asia, and a gateway to MENASA



Strategically occupying the middle time zone between London and Hong Kong, Dubai lies at the crossroad of Europe, Asia, and Africa. British influence has made **English** the *lingua franca* in the country.



One third of the world's population within a 4-hour flight of Dubai; two-thirds within an 8-hour flight. A natural gateway to Middle East, North Africa and South Asia (MENASA), as well as Africa.



An open city connected to the world

Trade and connectivity are pillars of Dubai's success

Dubai lies at the crossroads of Europe, Africa and Asia. Its ports connect it to world trade, and its position b/w Europe and Asia makes it a natural aviation hub.



- Jebel Ali Port is the world's 9th busiest container port (TEU)
- DXB is the busiest airport by international passenger traffic and the most connected airport.*
(As *Emirates* goes, so goes Dubai.)

* From Dubai there are non-stop flights at least three times a week to 93% of global cities outside of its home region.



Business-friendly and sociable environment

To attract businesses and talent Dubai hanged an “open for business” sign



- One of the biggest considerations for MNCs on where to do business is taxes. Dubai attracted by businesses by creating a low-tax environment – both for businesses and households
- Moreover, it is an open city (hosting over 200 nationalities) offering attractive lifestyle, so employers find it easy to attract/relocate talent to the emirate





The development road not taken

Dubai chose a path that few would have foreseen; but it also got basics right

Some of the great development success stories have seen countries ignore the advice of “experts” who pushed countries to pursue growth in areas where they had a comparative advantage. (Korea was advised to specialise in wigs and ginseng, two sectors for which they had a comparative advantage in the 1950s – at the time its GDP/cap was just \$100.)



- Dubai’s natural advantages seemed limited. But with no history in traditional sectors, it leapfrogged the traditional steps of development
- Dubai’s motto is to “go big or go home.” Most sane advisers would have advised against most (if not all) of Dubai’s hallmarks: Aviation hub/ Emirates; tallest building; largest mall; indoor ski resort; man-made islands



Where other saw challenges...

Dubai – the unlikely of places – saw opportunity



The MENA region is abundant in hydrocarbon wealth. Yet, the political instability of the region left it mostly ignored by investors. Leaders from the region did not help either by sending their money abroad with little regard to domestic development (i.e. no “skin in the game”). Religion and wealth extraction divided countries and led to corruption and/or iron fisted rule.

- No water? Desalination plant that is integrated with aluminum smelting plant (use waste energy/heat)
- A “barren” desert? Offer desert safaris
- Hot climate? Create an indoor ski resort and build an Olympic-sized ice hockey rink in a mall
- Unwelcoming region? Turn city into a global tourist destination



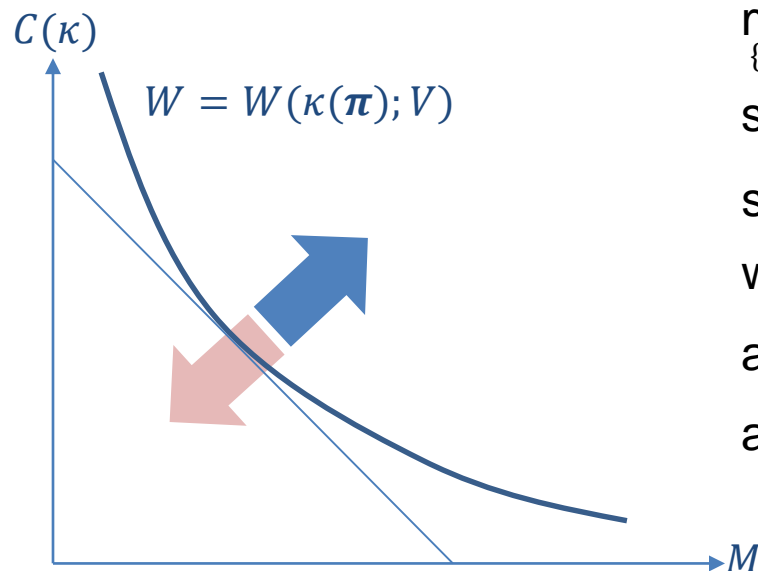


Government policy as a maximisation problem

Maximise social welfare choosing policy variables that achieve KPIs

The UAE government places great priority (and its legitimacy of rule) on delivering a high quality of life to its citizens. The UAE government accomplishes this through three primary means:

1. *Placing key performance indicators on government bodies to ensure transparent policymaking that works to improve the country*
2. Attracting expats to the country to help make the country prosperous
3. Creating laws favourable to locals and guaranteed employment through the public and semi-public sectors



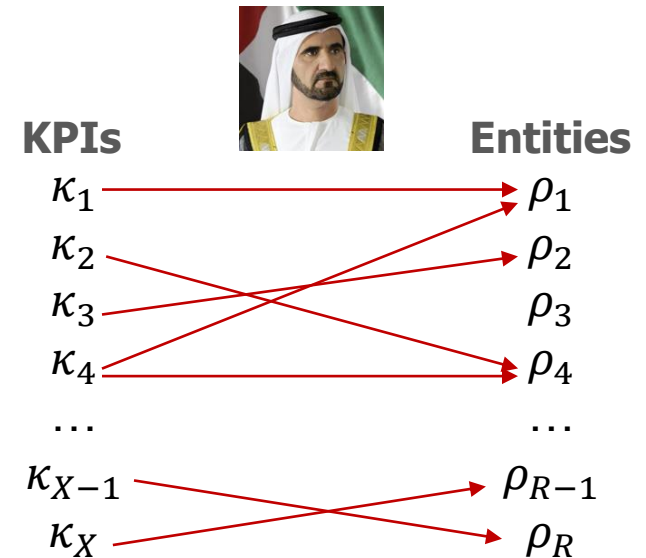
$$\begin{aligned}
 \max_{\{\kappa; \pi\}} \mathbf{W} &= \sum_{i=1}^N \omega_i W_i(\kappa; \mathbf{V}) \\
 \text{s. t. } \mathbf{V} &= \sum_{j=1}^M \vartheta_j V_j \geq \bar{\mathbf{V}} \text{ and } M = \min\{\mathbf{M}\} \\
 \text{s. t. } C(\kappa(\pi)) &\leq B \text{ and } \kappa_{t|0} \rightarrow \kappa_{t|T} \\
 &\text{where } W'_i(\kappa; \cdot) \geq 0 \text{ and } W'_i(\cdot; \mathbf{V}) \geq 0 \\
 &\text{and } g(\kappa; \cdot) \geq 0; \text{ and } \kappa \text{ a set of KPIs} \\
 \text{and } \kappa &= \kappa(\underbrace{\pi_1, \pi_2, \pi_3, \dots, \pi_L}_{\text{Policy variables}}) = \kappa(\pi)
 \end{aligned}$$



A culture of benchmarking

Everything is benchmarked and people are rewarded for meeting KPIs

The PMO assigns KPIs (indicators, indices, etc.) to every Ministry/Minister based on 3rd-party metrics – incentives also in place for private sector. Quantifiable targets give entities clarity on how to set policies and incentivizes parties to enact legislation aligned with Dubai's (and UAE's) development goals. In addition to normal set of KPIs, PMO also recently assigned "Project #1": All ministries and entities to achieve #1 in at a set of international KPIs





Benchmarking against leading economies

Borrow and localise successful policies that have worked elsewhere



Singapore transformed itself from a poor former British colony into a dynamic global powerhouse economy in just 2 generations. It is perennially ranked atop various benchmarks (e.g. WEF-GCR and WB-DBR).

Hong Kong is arguably the freest and most dynamic economy in the world. It is also the gateway to the Chinese market. Both Singapore and Hong Kong are world cities, with English the language of commerce.





Vision 2021: A set of “national agenda” indicators

UAE has laid out a clear strategic roadmap (w/ milestones) for development



How to measure success?...



International reports are like report cards

An index score is like a GPA; its components show where to improve

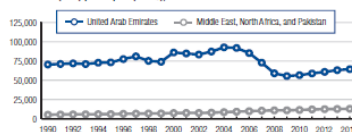
2: Country/Economy Profiles

United Arab Emirates

Key indicators, 2014

Population (millions)	9.3
GDP (US\$ billions)	401.6
GDP per capita (US\$)	43,180
GDP (PPP) as share (%) of world total	0.56

GDP (PPP) per capita (int'l \$), 1990-2014

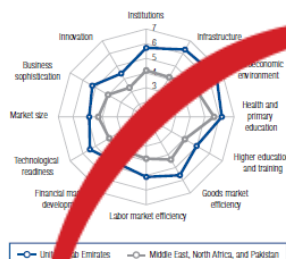


Global Competitiveness Index

	Rank (out of 140)	Score (1-7)
GCI 2015-2016	17	5.2
GCI 2014-2015 (out of 144)	12	5.3
GCI 2013-2014 (out of 148)	19	5.1
GCI 2012-2013 (out of 144)	24	5.1

Basic requirements (20.0%)		
1st pillar: Institutions	4	5.7
2nd pillar: Infrastructure	4	6.3
3rd pillar: Macroeconomic environment	7	6.5
4th pillar: Health and primary education	38	6.2
Efficiency enhancers (50.0%)		
5th pillar: Higher education and training	37	5.0
6th pillar: Goods market efficiency	3	5.6
7th pillar: Labor market efficiency	11	5.1
8th pillar: Financial market development	20	4.7
9th pillar: Technological readiness	30	5.4
10th pillar: Market size	31	4.9

Innovation and sophistication factors (30.0%)		
11th pillar: Business sophistication	15	5.3
12th pillar: Innovation	26	4.4



Stage of development



The most problematic factors for doing business

Factor	Score*
Restrictive labor regulations	19.9
Inflation	15.2
Inadequately educated workforce	14.4
Access to financing	13.9
Poor work ethic in labor force	7.9
Insufficient capacity to innovate	5.0
Inefficient government bureaucracy	4.7
Policy instability	4.4
Inadequate supply of infrastructure	2.6
Foreign currency regulations	2.2
Corruption	2.1
Crime and theft	2.0
Government instability/coups	2.0
Poor public health	1.7
Complexity of tax regulations	1.4
Tax rates	0.6

* From the list of factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The score corresponds to the responses weighted according to their rankings.

2: Country/Economy Profiles

United Arab Emirates

The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/140
1st pillar: Institutions		
1.01 Property rights	5.5	25
1.02 Intellectual property protection	5.5	22
1.03 Diversion of public funds	6.0	8
1.04 Public trust in politicians	6.0	2
1.05 Irregular payments and bribes	6.4	7
1.06 Judicial independence	5.6	22
1.07 Favoritism in decisions of government officials	5.3	5
1.08 Wastefulness of government spending	6.0	2
1.09 Burden of government regulation	5.2	5
1.10 Efficiency of legal framework in settling disputes	5.2	18
1.11 Efficiency of legal framework in challenging regis.	4.7	21
1.12 Transparency of government policymaking	5.4	16
1.13 Business corruption	6.4	7
1.14 Freedom of movement of labor	6.5	1
1.15 Organized crime and violence	6.8	2
1.16 Reliability of police	6.2	7
1.17 Ethical behavior of firms	5.8	10
1.18 Strength of auditing and regulatory systems	5.5	26
1.19 Efficacy of corporate boards	5.5	23
1.20 Protection of minority shareholders	5.3	15
1.21 Strength of investor protection, 0-10	6.1	42
2nd pillar: Infrastructure		
2.01 Quality of overall infrastructure	6.4	2
2.02 Quality of roads	6.4	1
2.03 Quality of railroad infrastructure	n/a	n/a
2.04 Quality of port infrastructure	6.4	3
2.05 Quality of air transport infrastructure	6.4	2
2.06 Available airline seats/km, millions	4.7	3
2.07 Quality of electricity supply	6.4	10
2.08 Mobile telephone subscriptions/100 pop.*	148	48
2.09 Fixed-telephone lines/100 pop.*	48	48
3rd pillar: Macroeconomic environment		
3.01 Government budget balance, % GDP	4	4
3.02 National savings, % GDP	13	13
3.03 Annual % change	1	1
3.04 Government debt, % GDP	8	8
3.05 Debt rating, 0-100 (best)	25	25
4th pillar: Health and primary education		
4.01 Life expectancy at birth, 0-100 pop.*	n/a	n/a
4.02 Business internet use/100 pop.*	n/a	n/a
4.03 Tuberculosis deaths/100 pop.*	1.8	1
4.04 Business impact of HIV/AIDS	6.2	45
4.05 HIV prevalence, %	<0.2	1
4.06 Business investment in R&D, % sales	6.3	31
4.07 Infant mortality rate/1,000 live births	7.0	44
4.08 Literacy rate, %	71.4	40
4.09 Primary education enrollment, net %	5.4	13
4.10 Secondary education enrollment, net %	91.2	94
5th pillar: Higher education and training		
5.01 Intensity of local competition	92.3	67
5.02 Tertiary education enrollment, gross %	16.8	99
5.03 Quality of the education system	5.3	12
5.04 Quality of math and science education	5.3	11
5.05 Quality of management schools	5.3	20
5.06 Internet access in schools	6.0	9
5.07 Availability of specialized training services	5.4	20
5.08 Extent of staff training	5.1	12
6th pillar: Goods market efficiency		
6.01 Intensity of local competition	6.0	8
6.02 Extent of market dominance	5.2	9
6.03 Effectiveness of anti-monopoly policy	5.3	7
6.04 Effect of taxation on incentives to invest	6.3	2
6.05 Total tax rate, % profits	14.8	7

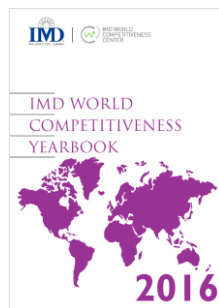
INDICATOR	VALUE	RANK/140
6th pillar: Goods market efficiency (cont'd)		
6.06 No. procedures to start a business*	6	57
6.07 No. days to start a business*	8.0	42
6.08 Agricultural policy costs	5.0	5
6.09 Prevalence of non-tariff barriers	5.5	2
6.10 Trade tariffs, % duty	4.1	58
6.11 Prevalence of foreign ownership	5.7	10
6.12 Business impact of rules on FDI	5.7	7
6.13 Burden of customs procedures	6.0	3
6.14 Imports as a percentage of GDP	62.7	19
6.15 Degree of customer orientation	5.7	8
6.16 Buyer sophistication	4.5	12
7th pillar: Labor market efficiency		
7.01 Cooperation in labor-employer relations	5.5	14
7.02 Flexibility of wage determination	6.1	4
7.03 Hiring and firing practices	5.1	8
7.04 Redundancy costs, weeks of salary	4.3	7
7.05 Effect of taxation on incentives to work	6.2	11
7.06 Pay and productivity	5.3	6
7.07 Reliance on professional management	5.5	20
7.08 Country capacity to retain talent	5.5	5
7.09 Country capacity to attract talent	5.9	3
7.10 Women in labor force, ratio to men*	0.51	125
8th pillar: Financial market development		
8.01 Availability of financial services	5.5	22
8.02 Affordability of financial services	5.4	20
8.03 Financing through local equity market	4.7	21
8.04 Ease of access to loans	4.7	3
8.05 Venture capital availability	4.4	7
8.06 Soundness of banks	5.9	21
8.07 Regulation of securities exchanges	5.5	16
8.08 Legal rights index, 0-12 (best)	2	106
9th pillar: Technological readiness		
9.01 Availability of latest technologies	6.3	9
9.02 Firm-level technology absorption	6.0	7
9.03 FDI and technology transfer	5.8	3
9.04 Individuals using internet, %	90.4	12
9.05 Fixed broadband internet subscriptions/100 pop.*	11.5	63
9.06 Int'l internet bandwidth, kb/s per user	44.5	59
9.07 Mobile broadband subscriptions/100 pop.*	114.0	9
10th pillar: Market size		
10.01 Domestic market size index, 1-7 (best)	4.6	34
10.02 Foreign market size index, 1-7 (best)	5.9	20
10.03 GDP (PPP\$ billions)	599.8	32
10.04 Exports as a percentage of GDP	94.6	11
11th pillar: Business sophistication		
11.01 Local supplier quality	5.4	8
11.02 Local supplier quality	5.3	24
11.03 State of cluster development	5.5	1
11.04 Nature of competitive advantage	4.8	24
11.05 Value chain breadth	5.1	16
11.06 Control of international distribution	5.3	5
11.07 Production process sophistication	5.1	28
11.08 Extent of marketing	5.6	5
11.09 Willingness to delegate authority	5.0	13
12th pillar: Innovation		
12.01 Capacity for innovation	4.7	28
12.02 Quality of scientific research institutions	4.8	30
12.03 Company spending on R&D	4.3	22
12.04 University-industry collaboration in R&D	4.7	22
12.05 Gov't procurement of advanced tech products	5.4	22
12.06 Availability of scientists and engineers	5.2	7
12.07 PCT patents, applications/million pop.*	5.0	48

Notes: Values are on a 1 to 7 scale unless otherwise annotated with an asterisk (*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page B9.

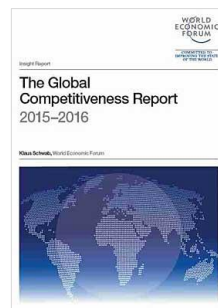


UAE competitiveness & international rankings

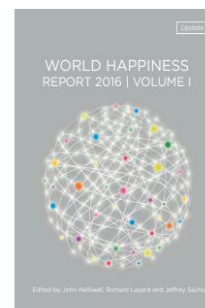
The outside world's perspective of the UAE – “Brand Dubai/UAE”



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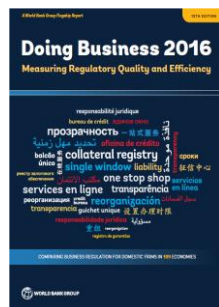
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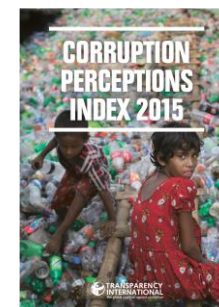
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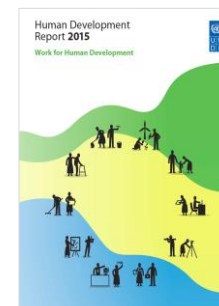
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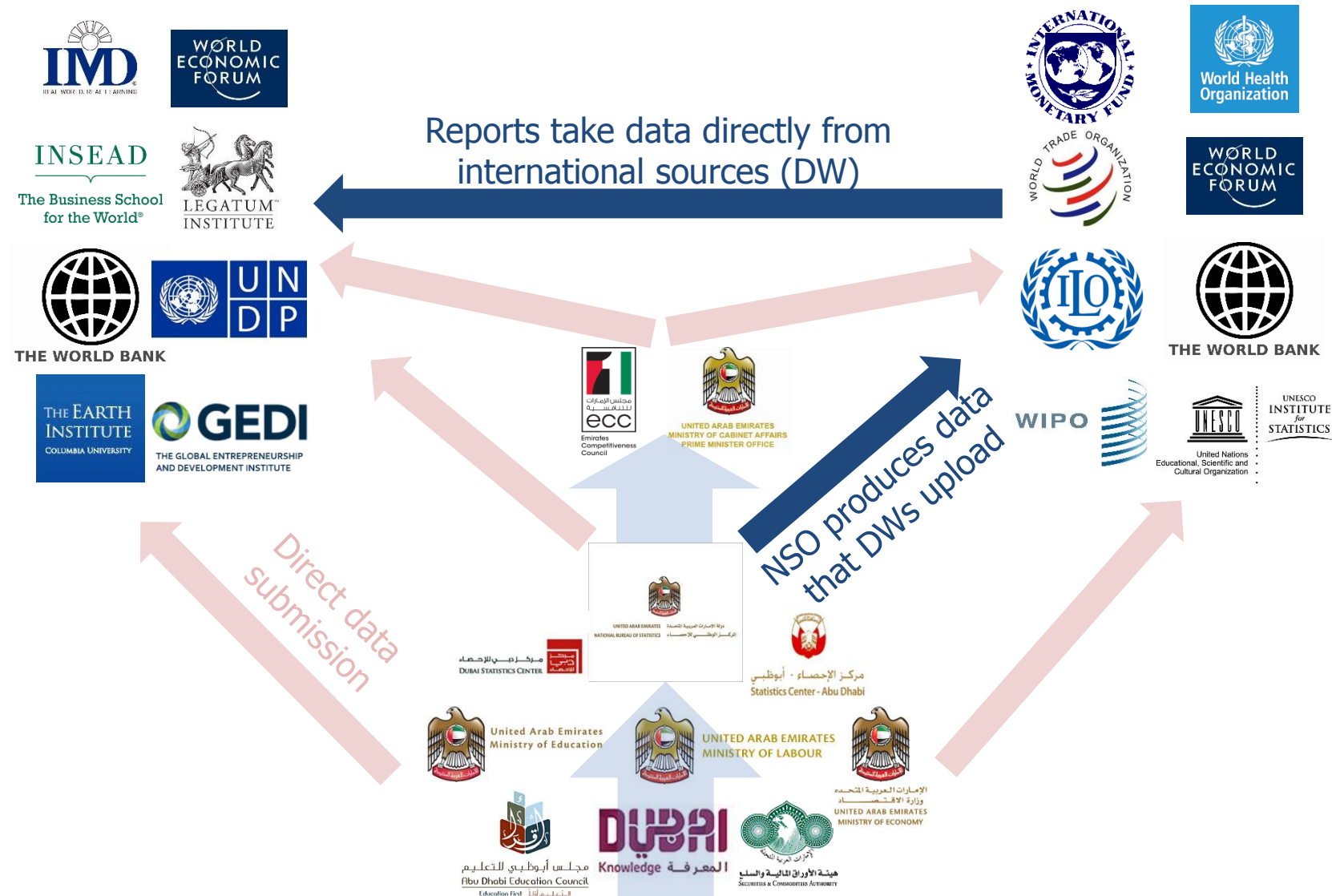


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Reports rely on national sources for data

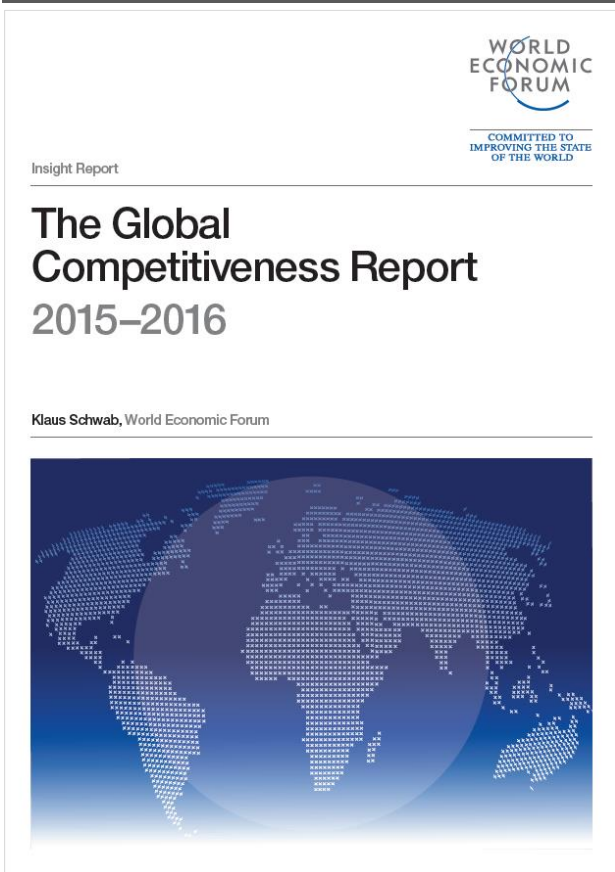
But sometimes data chain is porous and/or ad-hoc reporting is done





WEF Global Competitiveness Report (GCR)

The GCR is the commonly accepted flagship report on competitiveness



Competitiveness pertains to the ability & performance of a firm, sub-sector or country to sell and supply goods & services in a given market, in relation to the ability & performance of other firms, subsectors or countries in the same mkt.

Institutions



Infrastructure

Macroeconomic environment



Health & primary education

Higher education & training



Goods market efficiency

Labour market efficiency



Financial market development

Technological readiness



Market size

Business sophistication



Innovation

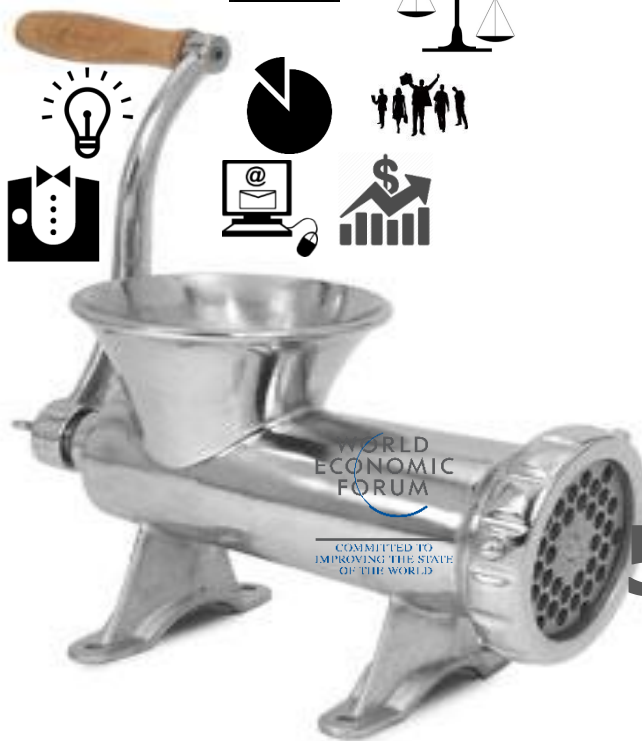


WEF Global Competitiveness Report (GCR)

Improve competitiveness by improving in its underlying indicators



Klaus Schwab



5.24



$$s(x) = \begin{cases} 6 \left(\frac{x - \min}{\max - \min} \right) + 1 & \text{if } x \in G \\ -6 \left(\frac{x - \min}{\max - \min} \right) + 7 & \text{if } x \in B \end{cases}$$

$$\text{and } S(x) = \sum_{k=1}^K \omega_k S_k(x)$$

The UAE has set itself a goal to be top-10 globally by 2021 (currently 17)



World Bank Doing Business Report (DBR)

Doing everything possible to attract investors to do business in Dubai



A World Bank Group Flagship Report

13TH EDITION

Doing Business 2016

Measuring Regulatory Quality and Efficiency

responsabilité juridique
bureau de crédit единое окно
прозрачность — 一站式服务
تحدد مهل زمنية oficina de crédito
balcão único collateral registry сроки
реестр залогового обеспечения 在线服务 single window liability 征信中心
services en ligne one stop shop servicios en línea
reorganización transparencia en línea
reorganización registro de garantías
transparencia guichet unique 设置办理时限
responsabilidad jurídica مسؤولية
reorganización
registro de garantías

COMPARING BUSINESS REGULATION FOR DOMESTIC FIRMS IN 189 ECONOMIES

WORLD BANK GROUP

Starting a business



Dealing with construction permits



Getting electricity



Registering property



Getting credit



Protecting minority investors



Paying taxes



Trading across borders



Enforcing contracts



Resolving insolvency





World Bank Doing Business Report (DBR)

A recipe list of reforms to do to make "doing business easy"



Jim Yong Kim



75.10



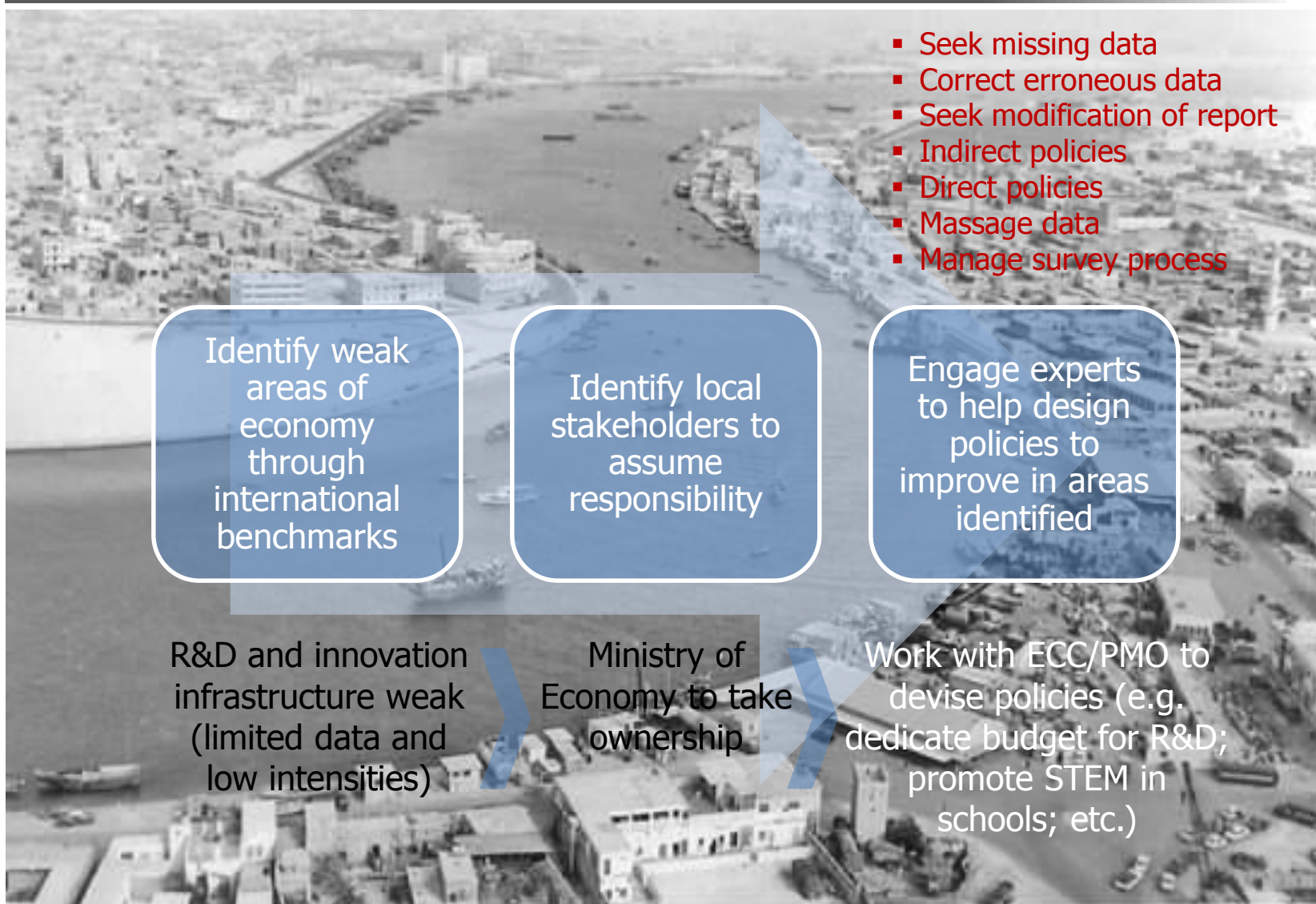
$$s(x) = \begin{cases} 100 \left(\frac{\text{worst} - x}{\text{worst} - \text{frontier}} \right) & \text{if } x \in N \\ 100 \left(\frac{x - \text{worst}}{\text{frontier} - \text{worst}} \right) & \text{if } x \in O \end{cases} \quad \text{and } S(x) = \sum_{k=1}^K \omega_k s_k(x)$$

The UAE has set itself a goal to be number 1 globally (currently 31)



Reports identify areas of strength and weakness

Policies are suggested to improve on weak points and maintain advantages





In era of low oil price priority now to become KBE

Global Innovation Index provides framework for policies using its indicators



JOHNSON
Cornell University

INSEAD

The Business School
for the World®



The Global Innovation Index 2015

Effective Innovation Policies for Development

Target set for
reducing UAE
reliance on
hydrocarbons

Grow know-
ledge sectors
of economy by
targeting GII
indicators

Engage experts
to help design
policies to
improve in
areas identified



Confederation of Indian Industry





Leveraging Dubai Expo 2020 to steer growth

Expo to bring direct economic benefits and to boost Dubai's KBE appeal

25 million visits to the Expo site, of which over 2/3 are expected to come from abroad



Expo budget of €5.2 BN capex and €1.3 BN opex; opex offset by oprev (€1.3 BN)



Connecting minds;
creating the future

**HELP
WANTED**

Creation of 250-280k jobs (every direct Expo job → ~45-50 additional jobs created)



Economic impact:

- Direct: 15.7 BN
- Indirect: 6.0 BN
- Induced: 4.2 BN
- Total: 25.9 BN



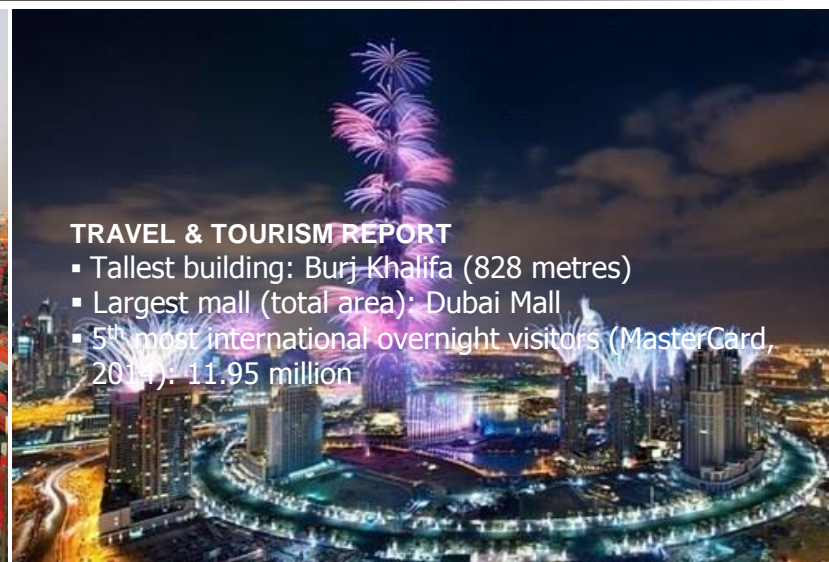
Economic diversification guided by benchmarking

Targeted sectors of economy can be mapped to international reports



LOGISTICS PERFORMANCE INDEX

- Busiest airport (international passengers, 2014): DXB (70.5 million)
- 9th busiest container port (TEU traffic): Jebel Ali



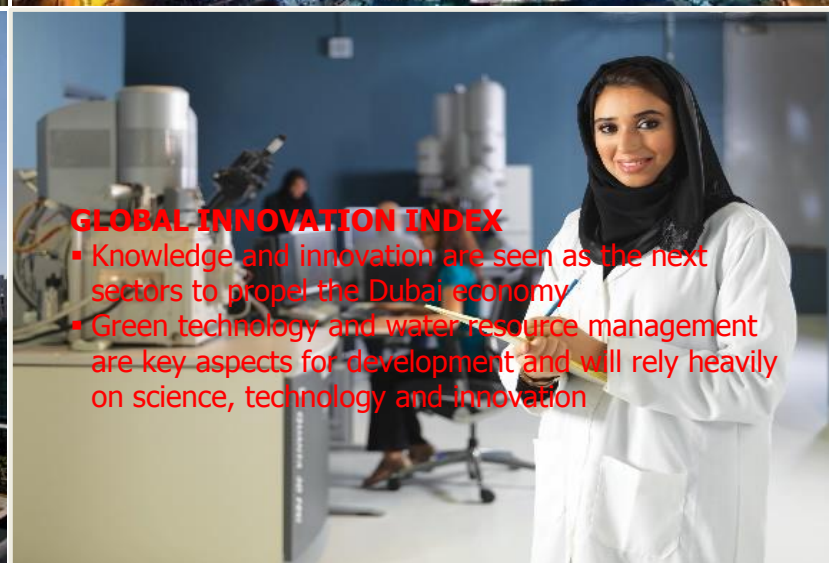
TRAVEL & TOURISM REPORT

- Tallest building: Burj Khalifa (828 metres)
- Largest mall (total area): Dubai Mall
- 5th most international overnight visitors (MasterCard, 2014): 11.95 million



FINANCIAL DEVELOPMENT REPORT

- 3rd most number of skyscrapers (150+ m): 148
- Most important financial centre between London and Hong Kong



GLOBAL INNOVATION INDEX

- Knowledge and innovation are seen as the next sectors to propel the Dubai economy
- Green technology and water resource management are key aspects for development and will rely heavily on science, technology and innovation



Long-term growth and KBE requires HC

Human capital is the key that will unlock the knowledge economy



Kai L. Chan, PhD

INTELLIGENCE CAPITAL INDEX

Sources: Kai L. Chan (2016)

National Agenda has goal to transform Dubai (UAE) into a knowledge economy, but much work required to improve its “intelligence capital”.

NATIONAL KEY PERFORMANCE INDICATORS

Competitive Knowledge Economy

INDEX	INDICATOR	DEFINITION	SOURCE	2012 RESULTS	2021 TARGETS	KEY SPONSOR
1	Non-oil Real GDP Growth	An indicator that measures the real annual economic growth of all sectors except oil. It is one of the most important macroeconomic indicators and reflects the overall state of the national economy over consecutive years. GDP includes the total value of annual production of goods and services.	Federal Competitiveness and Statistics Authority	4.84% (Preliminary-2014)	5%	Ministry of Economy
2	Gross National Income (GNI) per Capita	An indicator that measures the average income per person in a country. GNI includes the value of all the services and products that have been produced in the country (i.e. GDP) in a given year, in addition to the country's net income from abroad (such as dividends and interest).	World Bank	Rank 3 (2014)	Among the top 10 countries	Ministry of Economy
3	Net Inflow of Foreign Direct Investment as % of GDP	An indicator that measures foreign direct investment (FDI) as a percentage of GDP. FDI is defined as the amount of net inflow of investment required to achieve a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term and short-term capital, as shown in the balance of payments.	United Nations Conference on Trade and Development (UNCTAD)	2.60% (2014)	5%	Ministry of Economy
4	Global Competitiveness Index	A composite indicator that measures the competitiveness of countries based on (12) perspectives: institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size, business sophistication, and innovation.	World Economic Forum-Global Competitiveness Report	Rank 17 (2015 Report)	Among the top 10 countries	Federal Competitiveness and Statistics Authority
5	Share of UAE Nationals in the Workforce	An indicator that measures the share of employed UAE nationals out of the total workforce (expatriates and nationals), across all sectors (NWSP specific to UAE)	The National HR Development & Employment Authority (Tannim)	5.0% (2014)	8%	The National HR Development & Employment Authority (Tannim)
6	Ease of Doing Business Index	A composite indicator that measures government procedures around business activity. It is based on (11) sub-indicators: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency, and labor market regulations.	World Bank	Rank 31 (2015 Report)	Rank 1	Federal Competitiveness and Statistics Authority
7	Emiratization Rate in the Private Sector	An indicator that measures the share of UAE nationals employed in the private sector, as a proportion of the total private sector workforce (expatriates and nationals) (NWSP specific to UAE)	Ministry of Labor	1.0% (2014)	5%	Ministry of Labor
8	SME Contribution to Non-oil GDP	An indicator that measures the share of GDP produced by small and medium-sized enterprises	Federal Competitiveness and Statistics Authority	60% (2011)	70%	Ministry of Economy
9	Global Entrepreneurship and Development Index (GEDI)	An indicator that measures 3 sub-indices: Entrepreneurial Attitudes (the general disposition of a country's population toward entrepreneurship and business start-ups), and Entrepreneurship Agitation (the efforts of the early stage entrepreneur to introduce new products and services, develop new production processes, penetrate foreign markets, substantially increase the number of firm employees, and finance the business with either formal or informal venture capital, or both).	Global Entrepreneurship and Development Institute	Rank 19 (2016 Report)	Among the top 10 countries	Ministry of Economy
10	Global Innovation Index	A composite index that measures the performance of innovation in countries. Innovation inputs are measured based on institutions, human capital and research, infrastructure, market sophistication and business sophistication, while innovation output is measured by knowledge and technology outputs, and creative outputs.	INSEAD	Rank 47 (2015 Report)	Among the top 10 countries	Ministry of Economy
11	Share of "Knowledge Workers" in the Labor Force	An indicator that measures the share of highly skilled workers, workers in high-level professions, and workers classified under the International Standard Classification of Occupations (ISCO - 08) of the total workforce. These jobs include legislators, managers, business executives and specialists and technicians in the scientific, technical and humanitarian fields (i.e. the top levels of the classification of occupations).	Ministry of Labor	22.70% (2014)	40%	Ministry of Labor
12	Research and Development Expenditure as % of GDP	An indicator that measures the total domestic expenditure on research and development (in the public, academic, and private sector), as a percentage of GDP	Federal Competitiveness and Statistics Authority	0.5% (2012)	1.5%	Ministry of Higher Education and Scientific Research

www.KaiLChan.ca



Thank you!

Questions & answers



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감사합니다 Natick

Grazie Danke Ευχαριστίες Dalu

Thank You Köszönöm

Спасибо Dank Tack

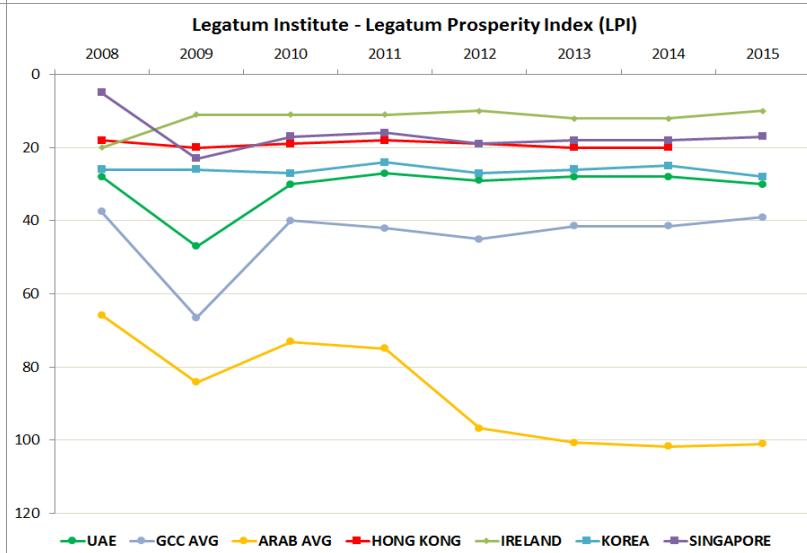
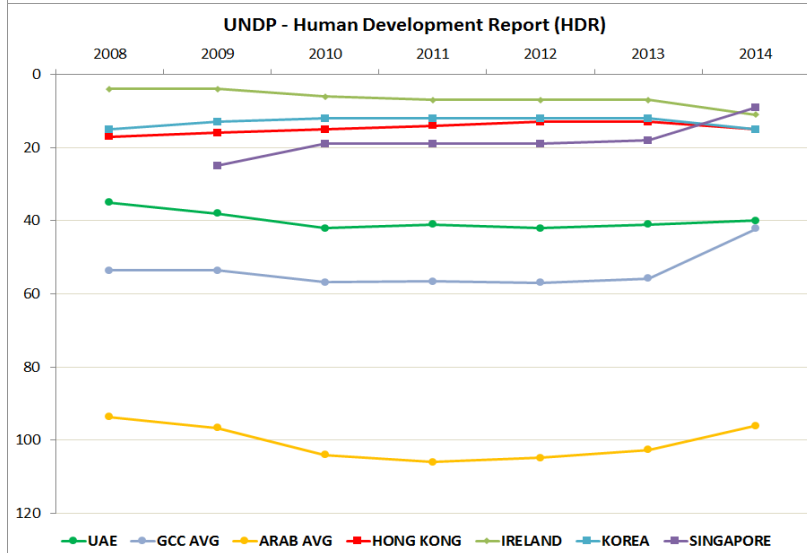
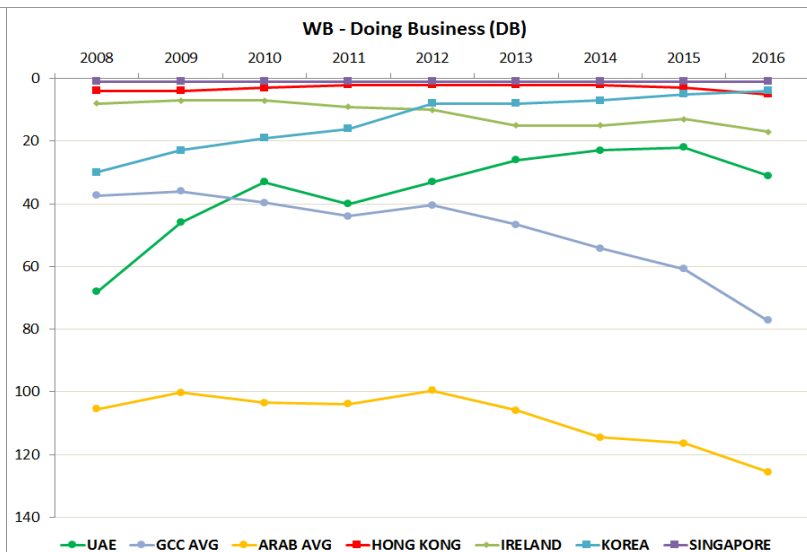
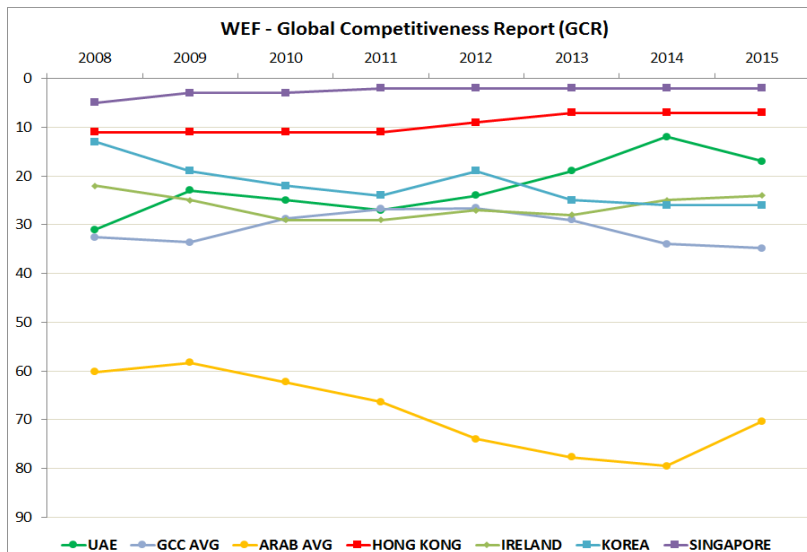
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Obrigado



APPENDIX: Historical performance of UAE

WEF-GCR, WB-DBR, UNDP-HDR, LI-LPI



Sources: Legatum Institute, UNDP-HDR, WEF-GCR, World Bank DBR.



APPENDIX: Overview of MENA region

Dependency on oil and youth unemployment biggest challenges



COUNTRY	POP. (MM)	GDP (\$BN)	GDP / CAPITA	GVT TYPE	GROSS CRUDE REV. (\$BN)	OIL SHARE EXPORTS (%)	MAJOR ENDEMIC RELIGION(S)	ARMED CONF.	U3 RATE (%)	YOUTH U3 RATE (%)	LIT. RATE (%)
Algeria	39.5	227.8	\$5,767	Republic	69.8	96.3	Sunni		9.8	24.0	72.6
Bahrain	1.3	34.0	\$25,860	Monarchy	2.4	72.4	Shia, Sunni	✓	7.4	27.9	94.6
Egypt	87.9	284.9	\$3,241	Republic	27.4	36.6	Sunni, Coptic	✓	12.7	38.9	73.9
Iran	78.0	402.7	\$5,163	Republic	126.5	82.2	Shia		13.26	29.7	85.0
Iraq	36.0	222.9	\$6,191	Republic	121.2	99.1	Shia, Sunni, Christian	✓	16.0	34.1	78.5
Israel	8.3	305.0	\$36,763	Republic	0.2	4.9	Judaism, Islam	✓	6.3	10.7	97.1
Jordan	6.7	36.6	\$5,467	Monarchy	0.0	1.1	Sunni, Christian		12.6	33.7	95.9
Kuwait	4.0	179.3	\$44,340	Monarchy	111.4	96.9	Sunni, Shia,		3.1	19.6	93.9
Lebanon	5.0	47.5	\$9,565	Republic	0.0	1.8	Shia, Sunni, Christian	✓	6.5	20.6	89.6
Libya	6.2	49.3	\$7,901	Republic	39.0	99.4	Sunni	✓	19.6	51.2	89.5
Morocco	33.3	112.6	\$3,385	Monarchy	0.2	4.4	Sunni		9.2	18.5	67.1
Oman	4.1	80.5	\$19,644	Absolute	37.5	76.7	Ibadi		7.9	20.5	86.9
Qatar	2.2	212.0	\$98,362	Absolute	81.9	94.6	Sunni, Shia		0.5	1.5	96.3
Saudi Arabia	30.8	777.9	\$25,280	Absolute	459.7	84.5	Sunni, Shia		5.7	28.7	87.2
Syria	18.0	77.5	\$4,315	Republic	7.2	7.8	Sunni, Shia, Christian	✓	10.8	29.8	84.1
Tunisia	11.0	49.1	\$4,473	Republic	2.6	13.9	Sunni	✓	13.3	31.2	79.1
UAE	9.1	336.1	\$44,089	Absolute	128.0	76.5	Sunni, Shia		3.8	9.9	90.0
Yemen	26.0	45.5	\$1,751	Republic	5.3	89.0	Sunni, Shia	✓	17.4	29.8	65.3
MENA	407.6	3,562	\$8,738	N/A	1,220.3	68.4			11.7	29.7	78.9
China	1,368.0	10,355.4	\$7,575	Socialist	176.7	0.7			4.6	10.1	95.1

Population, GDP, GDP/capita for 2015. Crude revenues (gross) and unemployment rates for 2013. Oil share of exports for 2012. Literacy rate for most recent available year.



APPENDIX: Overview of the GCC

Surpluses from hydrocarbon wealth have been used to build buffers



COUNTRY	POPULATION	GDP (\$BN)	GDP / CAPITA	FOREIGN POP'N (%)	OIL SHARE OF GDP (%)	PROD. (K BBL / DAY)	OIL RES. (BN BBLI)	YRS RES.	CURRENCY REGIME	SWF ASSETS (\$BN)
Bahrain	1,316,500	34	\$25,860	54.0	19	61.2	0.1	5.6	Pegged USD	11
Kuwait	3,583,000	179	\$50,051	62.0	50	2,811.8	104.0	101.3	Basket	548
Oman	4,099,904	81	\$19,644	44.2	50	945.1	5.5	15.9	Pegged USD	19
Qatar	2,235,431	212	\$94,842	87.0	60	2,067.3	25.2	33.4	Pegged USD	256
Saudi Arabia	30,770,375	778	\$25,280	31.1	45	11,600.4	268.4	63.3	Pegged USD	763
UAE	9,445,600	416	\$44,089	88.5	33	3,229.6	97.8	82.9	Pegged USD	1,079
GCC Total	52,333,253	1,700	\$32,489	47.8	44.2	20,715.4	501.0	66.2	N/A	2,676
Eurozone	334,570,678	13,447	\$40,192							
USA	320,201,000	17,416	\$54,392							



Diversified trade partners but concentration risk in exported products





Hydrocarbons still dominate trade





APPENDIX: DXB growth

Riding globalisation to achieve high levels of sustained growth

