The Gas Exporting Countries Forum: Is it *really* a Gas OPEC in the Making?

Hadi Hallouche

Oxford Institute for Energy Studies

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PREFACE

In the mid-2000s we are seeing heightened concern about security of supply in gas importing countries. Part of the concern is that – within a few years – importers may be facing the equivalent of an "OPEC for gas". The Gas Exporting Countries Forum (GECF) is a little known and understood organisation. When this paper on the Forum was commissioned at the beginning of 2005, it seemed reasonable to believe that by mid-2006 when the paper would be published, more would be known and understood about the organisation. Arguably the opposite has happened. There is less knowledge and understanding, and increasing adverse speculation, about the Forum today than a year ago. Hence the importance of this paper.

We are really grateful to Hadi Hallouche for taking on the very difficult task of researching an organisation in the face of so little publicly available material. An important part of the remit of the Oxford Institute for Energy Studies is to promote understanding and dialogue between energy producers and consumers. In an environment where statements by politicians and commentators often suggest that these relationships are dominated by suspicion and distrust rather than dialogue, it is increasingly important to disentangle fact from speculation in relation to the GECF.

Jonathan Stern May 2006
Oxford

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EXECUTIVE SUMMARY

- Natural gas, especially liquefied natural gas (LNG), consumption and trade are booming. The US is becoming an important importer, the EU is liberalising and expanding its regasification capacity and China and India are emerging as new LNG buyers. The market is slowly moving from the traditional long-term rigid contract model to a relatively more liquid state.

- The dependence on imports is increasing in most OECD markets and, with it, security of supply concerns. These concerns sometimes prompt immediate assumptions that natural gas may be used as a 'weapon'. In this context, the Gas Exporting Countries Forum (GECF) has sometimes been characterised as a Gas OPEC in the making.

- The GECF is an organisation set up in 2001. Its members meet at the ministerial level once a year to discuss Gas and LNG technology, trade, strategy, projects, pricing etc. Regular members of the GECF include Algeria, Nigeria, Libya, Egypt, Trinidad and Tobago, Venezuela, Russia, Iran, Qatar, Oman, the United Arab Emirates, Brunei, Malaysia, Indonesia and Norway (observer).

- A number of GECF members are OPEC members and there are many similarities between the two organisations, including the structure. There are also many differences: gas and oil are different commodities and the membership structure of the organisations are fundamentally different. Plus, GECF members are not necessarily interested, economically, strategically or politically, in organising themselves around a cartel.

- Hence, the GECF is today far from being a cartel and there is no persuasive evidence that it will become one. Whether it will develop as a 'Gas OPEC', therefore, is improbable, albeit not impossible, particularly in a situation of over-supply in the future.

- However, the ministerial meetings that the forum held in Tehran, Algiers, Doha, Cairo and Port of Spain during the period 2001-05, have slowly begun to define a structure for the Forum. Its membership also accounts for an overwhelming share of global reserves and LNG exports to all major importing regions.

- The US is still a comparatively new market for LNG. It is more liberalised and transparent than the EU market. The Asia-Pacific market is less liberalised than either the US or Europe and more contractually rigid, built on long-standing trust relationships and inter-dependence between trade partners.

- The implementation of the retroactive, and controversial, ban on territorial restrictions by the EU Commission, amongst other issues, makes the EU market a focus of common concern for many GECF members. In fact, the setting up of the forum was in part motivated and triggered by the implementation of these EU rules.

- The membership of the Forum has not been stable. There are no formal requirements, nor are there membership fees to pay or statutes to sign. Canada, Australia, The Netherlands and Norway, who are important exporters, are not members and some members, notably Venezuela, who assumed the presidency of the forum in 2006, are not yet exporters. Also, the centre of gravity of the forum has slowly moved towards an LNG focus.

- The forum worked and is working on projects of interest for producing/exporting countries, such as the contracts database, projects related to compressed natural gas (CNG), gas to liquids (GTL) and electricity. One of the important projects in progress is the global supply-demand model which requires planning, data and, more importantly, funding. The way this will be managed is an important test of the Forum's effectiveness, especially in view of low level of trust between some of its members.

- The Forum is important to some of its members. It offers ways to identify potential synergies in vertical integration, partnerships and swaps. On the other hand, it is impeded by diverging interests in a highly competitive environment.
- Besides the sharing of information and the supply-demand model, pricing will be an issue of concern to many members. The principle of net-back market pricing will have to be debated in view of the phase-out of destination clauses and as a number of contracts expire and need to be renewed in the coming years.

- There is very little official information about the Forum. In line with launching a liaison office last year, the Forum needs a website. This could considerably improve transparency, visibility and understanding of the Forum.

- GECF members have consistently discussed inviting gas consumers to join the Forum. It is plausible, therefore, that this may happen for future meetings but uncertain as to how consumers and importers would respond. The relationship between OPEC and the GECF will also be interesting to observe, particularly if the former's secretariat is granted observer status at the latter's meetings.

- The supply-demand model (with all the 'trust' issues that it will raise) and pricing, as well as other projects, are hot topics to be discussed by the Forum at the next round of discussions. The Venezuelan presidency in 2006 will be interesting to observe.

- The Forum was set up in a 'buyers' market', a time of over-supply and low prices and hence a strong incentive for producer cooperation. At the time of writing, with higher than expected consumption, tight supply and record prices, it is a sellers' market with little or no motivation for producers and exporters to rally around the Forum, hence the apparent decrease in attention by its members that the Forum has witnessed lately. Also, after the Russia–Ukraine gas dispute, buyers have become increasingly concerned about security of supply.

- Further, after the Port of Spain meeting in 2005, the Iranian Petroleum Minister, Bijan Zanganeh – an important sponsor of the Forum–was replaced after the position was vacant for a long period. Erik Williams – The Trinidad and Tobago Minister of Energy and Chairman of the Forum – resigned and Chakib Khelil, the Algerian Minister of Energy and another important sponsor of the Forum, voiced serious frustrations about the Forum.

- There are indeed uncertainties as to whether the sixth round in Caracas will actually happen. It is not clear whether the Venezuelan presidency has been able to convene the Forum or whether the meeting is to move to be hosted by another country, say Qatar. In fact, it is not clear whether the sixth Ministerial Conference will convene at all. A more important issue is whether this signals a loss of interest in the Forum by its members and whether this interest will come back if and when market conditions are different.

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1. INTRODUCTION

Natural gas production in the markets of organisation for economic cooperation and development (OECD) countries such as North America and Europe is beginning to decline, while demand for gas is boosted by new investments in gas-fired power generation, and by increased environmental awareness. The need to import gas, and henceforth to trade it internationally, has therefore seen an unprecedented growth in the 1990s and continues to enjoy a period of boom.

Pipeline trade is growing, but is has economic, geographic and political limitations. LNG trade has hence been growing sharply and is expected to continue. According to Jensen[1] (2004), traditionally highly capital intensive and front-loaded LNG import, transportation and export infrastructure has historically been reducing in cost. New investment in exploration and production as well as decreasing production in many important markets has increased the number of buyers and sellers and key markets are in the process of liberalisation. National and international oil companies, boosted by sustained high oil prices, are engaging in geographical and vertical expansion efforts and so natural gas trade in general, and LNG trade in particular, is in an important period of change.

In light of this, new strategic challenges are facing natural gas trade players. Buyers, who are increasingly dependent on imported gas and with new trade partners, are paying increasing attention to security of supply. Sellers, for whom natural gas exports account for an increasingly high proportion of national revenues, are paying increasing attention to avoiding over-supply and to pricing.

It is in this environment that the Gas Exporting Countries Forum (GECF) was set up, and has been meeting on an annual basis, since 2001. To date, there is little literature and information available about the GECF, official or otherwise. This has fuelled speculation about this organisation: a discussion club or a forum of exchange of technical and economic information for some; a so-called 'Gas OPEC' in the making for others.

[1] J. Jensen, 'The Development of a Global LNG Market: Is It Likely? If So When?', Oxford Institute for Energy Studies, 2004.

Chapter 2 of this paper sets the scene for international gas and LNG, its current and potential dynamics and underlying drivers. Chapter 3 looks into the GECF, its evolution to date, its membership and its structure. Chapter 4 looks into the market share of the GECF in LNG in terms of contracted volumes and liquefaction capacity by market. Chapter 4 also looks at other potential regional, institutional or like-minded, groupings and their potential market shares. Chapter 5 analyses the economic and strategic outlook for the GECF by comparing it to OPEC, in terms of structure, membership, market shares and underlying fundamentals. Chapter 5 also analyses the internal dynamics within the Forum and how converging or diverging interests between its members can shape the organisation in the medium term.

2. SETTING THE SCENE: OUTLOOK FOR NATURAL GAS TRADE

2.1. The Underlying Fundamentals: Reserves Distribution

The Middle East, the region with the highest reserves of gas, on aggregate, accounts for 40 per cent of the world's reserves, followed by the Former Soviet Union, which accounts for 32 per cent. Compared with oil – where 62 per cent of the world's reserves are located in one region, the Middle East, natural gas reserves are better distributed at a regional level[2]. On a national level, however, natural gas reserves are much less evenly distributed than oil. Russia, Iran and Qatar, the world's largest gas reserve holders, account for 56 per cent of the world's reserves whereas Saudi Arabia, Iraq and Iran – holders of the world's largest oil reserves – only account for 43 per cent of the world's oil reserves.[3]

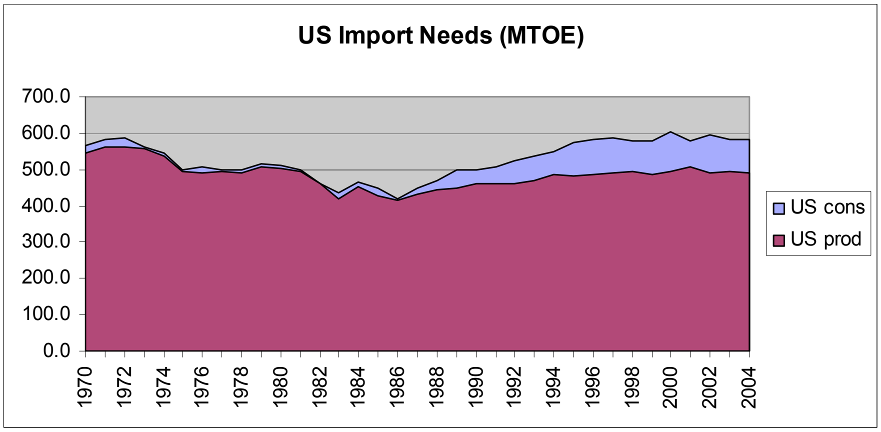
2.2. The Atlantic Market

2.2.1. The US: Driver for Growth and Liquidity

Over the recent past, production and imports in the US have not been growing at the same rate as consumption (Figure 2-1). Traditionally, Canada has been North America's major exporter of gas. However, as growth in indigenous production and export potential from Canada is showing some potential limitations, there appears to be strong pressure for growth on LNG imports, either directly or indirectly (e.g. through Mexico). These pressures for growth have had an upward effect on prices, which has attracted a large volume of spot/short-term LNG in the recent past from a wide range of countries, including cargoes from as far as Malaysia (Figure 2-2).

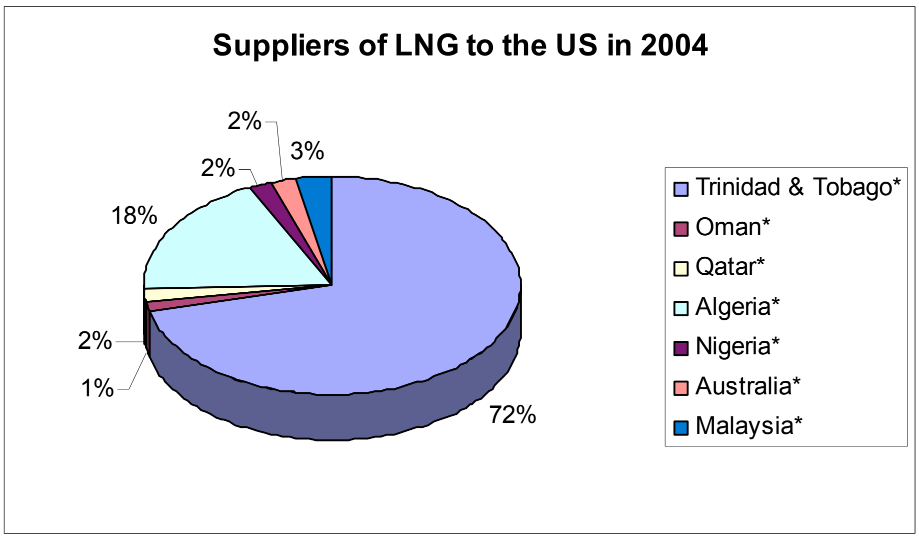
[2] Data from the BP Statistical Review of World Energy 2005.
[3] Data from the BP Statistical Review of World Energy 2005.

Figure 2-1: Gap between consumption and production in the US potentially widening



Source: Cedigaz, *Natural Gas in the World, 2004*.

Figure 2-2: Suppliers of LNG to the US in 2004



Source: Cedigaz, *Natural Gas in the World 2004*.

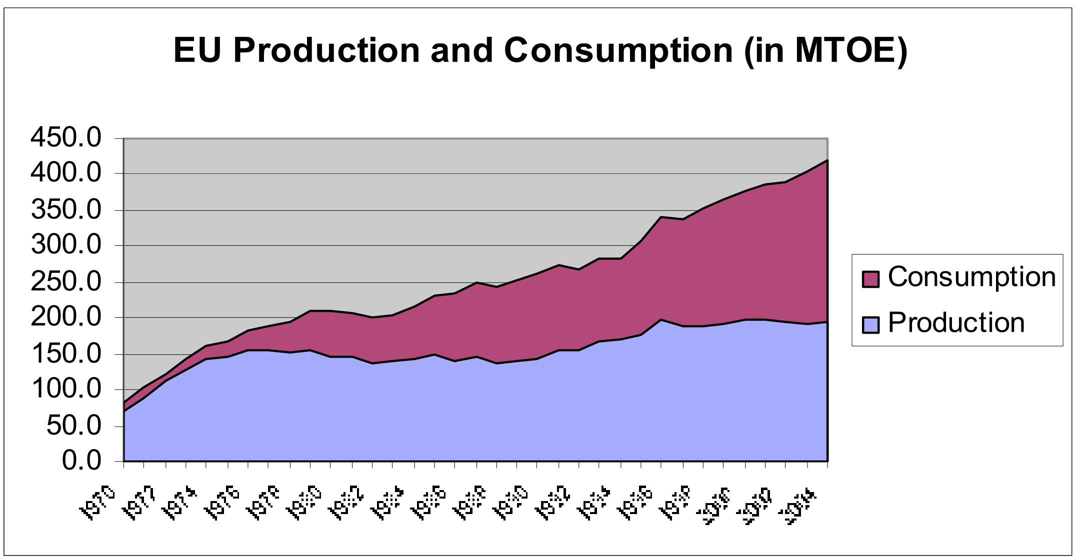
Note: * Indicates a full member of the GECF

This being said, the US is dependent on imports for a mere 19 per cent of its consumption, and LNG imports for only 3 per cent. If consumption in the US continues to grow faster than domestic production and imports from Canada, prices will remain at a high enough level to justify a strong growth in imports of LNG to the US. This is in spite of the fact that, in the current political context, efforts for investment in regasification terminals – LNG import – infrastructure, have faced fierce NIMBY (not in my backyard) hostility from local groups. Also, the US market, due to its scale, allows for inter-fuel substitution if prices are sustainably high.

2.2.2. The EU Market: In the Midst of Structural Changes

The EU market, on the other hand, is going through an important phase of structural change, an important characteristic of which is the market liberalisation resulting from the implementation of the two gas directives as well as the application of competition rules to gas markets. These will be discussed further in page 43. Stagnating production and booming consumption (Figure 2-3 and Figure 2-4) in the EU make it more dependent on imports than the US. As Table 2-1 and Table 2-2 show, the EU is dependent for 56 per cent of its demand on pipeline imports and 9 per cent on LNG[4].

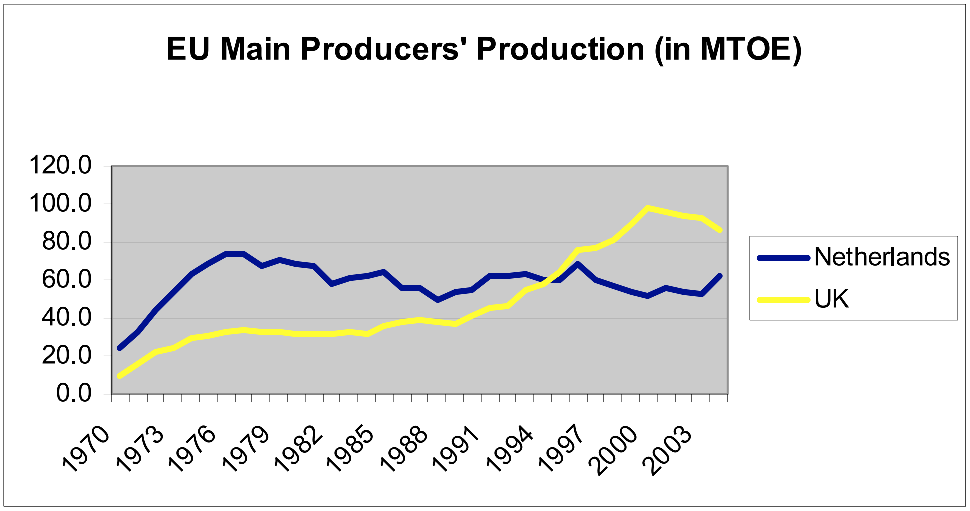
Figure 2-3: EU natural gas production and consumption – the widening gap



Source: BP Statistical Review of World Energy, 2005.

[4] Cedigaz, Natural Gas in the World 2004

Figure 2-4: A potential peak in The Netherlands' and the UK's production?



Source: BP Statistical Review of World Energy, 2005.

Table 2-1: Pipeline Imports Distribution for the EU

Pipelines (2004)	R/P Ratio	% Demand EU	% Pipeline Imports EU
Netherlands	21.7	10.2	18.2
Norway	30.4	14.1	25.1
UK	6.1	2.1	3.7
Russian Fed*****	81.5	22.5	40.1
Algeria*****	55.4	7.2	12.7
Libya*****	>100	0.1	0.2
Total		**56.1**	**100**
of which GECF		**29.6**	**53**

Source: Cedigaz, *Natural Gas in the World 2004*.
Note: * Indicates a GECF member

Table 2-2: LNG Imports Distribution for the EU

LNG (2004)	Share of LNG Imports (%)	Share of Demand (%)
Oman*	3.2	0.3
Qatar*	9.8	0.8
UAE*	0.5	0.05
Algeria*	55.1	4.7
Libya*	1.6	0.1
Nigeria*	29.4	2.5
Malaysia*	0.5	0.05
Total	**100**	**8.6**
of which GECF	**100**	**8.6**

Source: Cedigaz, *Natural Gas in the World 2004*.
Note: * Indicates a GECF member

2.2.3. New Suppliers

From the supply viewpoint, the Atlantic market is witnessing increased production by its traditional suppliers: Algeria, Nigeria, Qatar, Oman, Egypt and Libya as well as the emergence of new potential suppliers, like Equatorial Guinea (expected in 2008), Angola (expected in 2010) and Norway (expected in 2007) and potential suppliers such as Venezuela (expected in 2011), Iran (expected in 2011), Russia (the Shtokman LNG is projected to start in 2012 but more likely to be delayed until 2015) and Yemen (2008) [5].

2.3. The Asia-Pacific Market

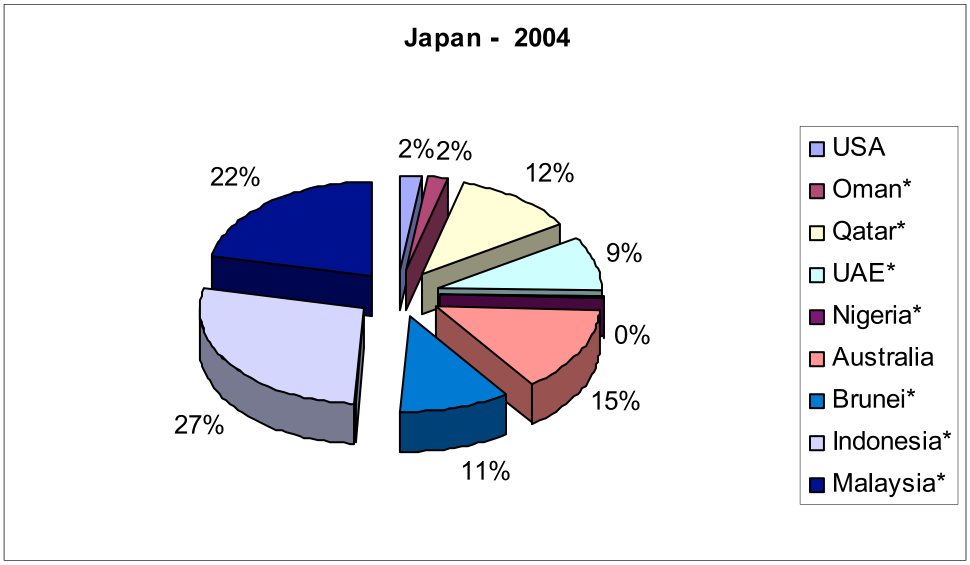
The Asia-Pacific market is different from the Atlantic in more than one way. Virtually all trade in the market is via LNG. There are a small number of players with established and long-standing relationships. Japan, Korea and Taiwan are currently the major importers in the market but energy-thirsty China and India are predicted to become important LNG importers within the next decade. Indonesia, Malaysia, Brunei, Qatar and Australia are the most important exporters.

2.3.1. Japan and Korea: potential for LNG consumption

Virtually all gas consumption in Japan and Korea is sourced from LNG Imports. These two countries have worked, through the years, to diversify both their primary energy fuel mix and their sources of supply of these fuels (Figure 2-5 and Figure 2-6), especially oil and gas. The growth in gas consumption in these two countries (Figure 2-6) and low production potential mean that LNG imports will continue to boast a strong growth in the region.

[5] Gas Strategies Online, August 2005

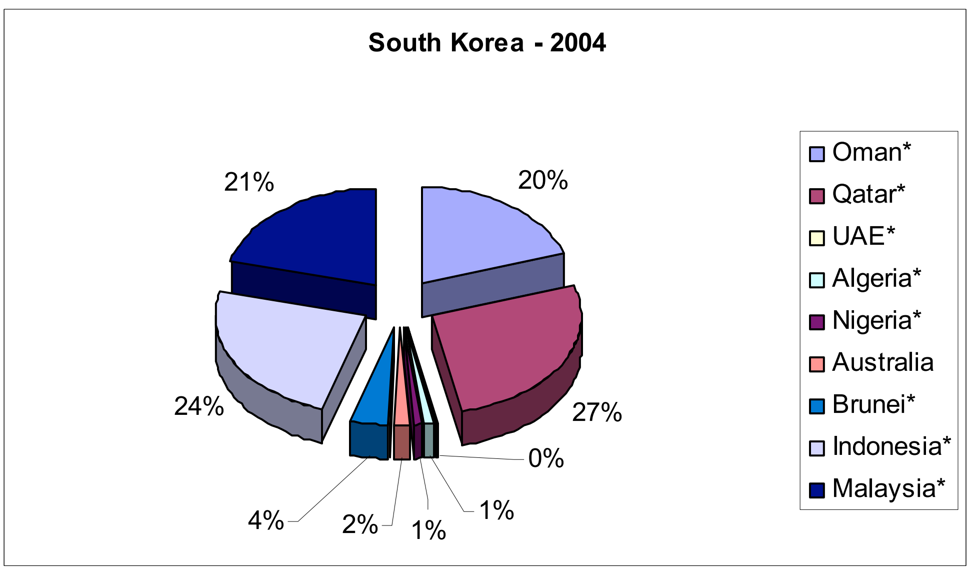
Figure 2-5: Suppliers of LNG to Japan in 2004



Source: Cedigaz, *Natural Gas in the World 2004*.

Note: * Indicates a GECF member

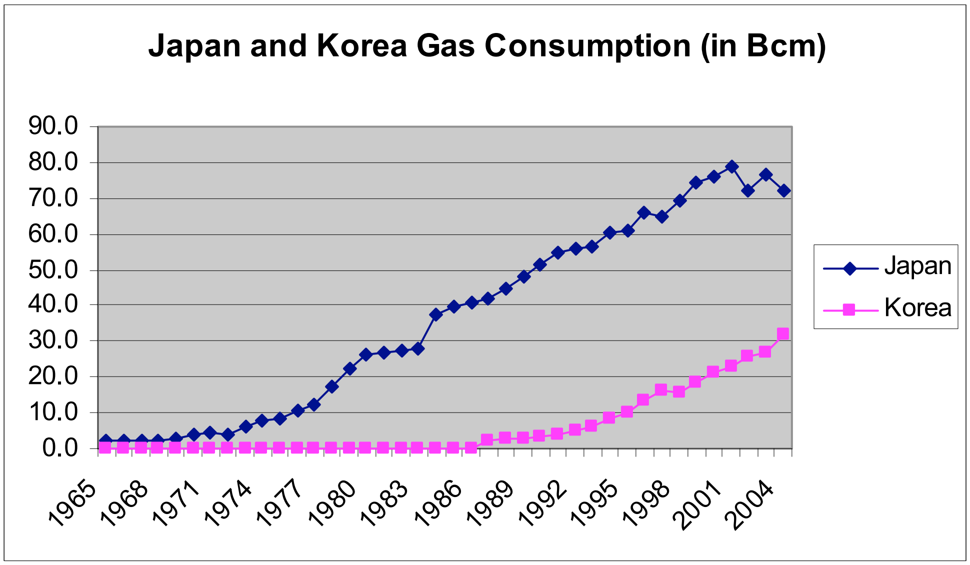
Figure 2-6: Suppliers of LNG to South Korea in 2004



Source: Cedigaz, *Natural Gas in the World 2004*.

Note: * Indicates a GECF member

Figure 2-7: Japanese and Korean natural gas consumption trends



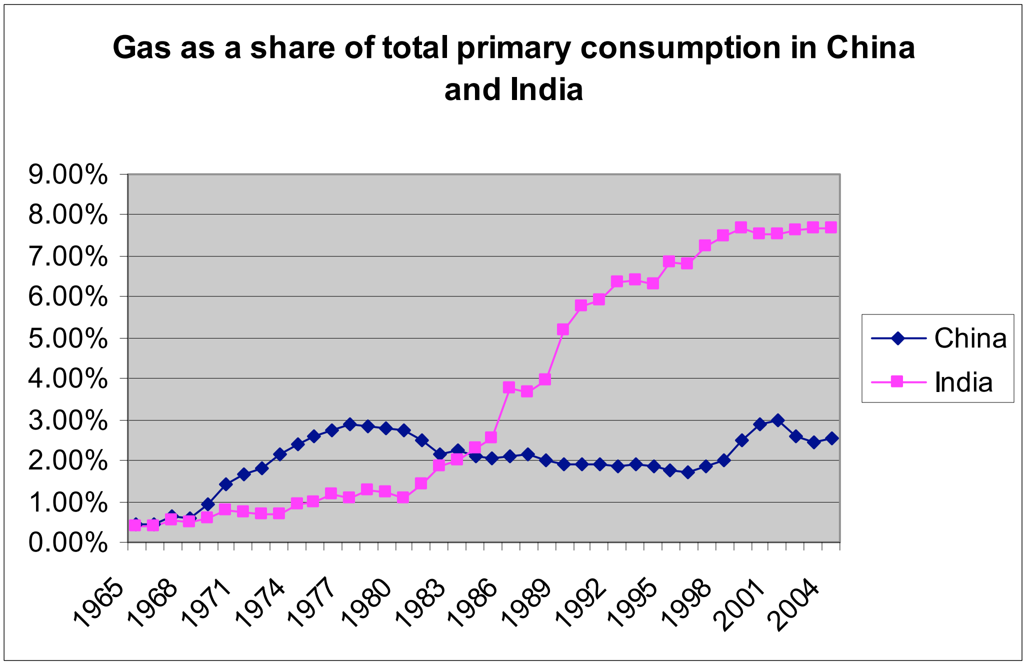
Source: BP Statistical Review of World Energy, 2005.

2.3.2. India and China: Emerging Consumption Growth Centres

China and India, with high economic growth and accordingly high primary energy consumption, have been the key drivers in oil demand, and prices, over the recent past. With natural gas growing almost exponentially both in absolute terms and relative to other primary energy fuels, like coal (Figure 2-8), the amount of import capacity (both pipeline and LNG) that these two countries are planning leads to the conclusion that they will become key players in the Asia-Pacific market.

The Dahej and Hazira terminals in India are in operation, and the Guandong and Fujian terminals in China are due to start in 2006 and 2007, respectively. India and China are poised to become important LNG importers, though there remains some uncertainty about the affordability of LNG at 2005-06 prices.

Figure 2-8: Gas as a share of primary energy consumption in China and India



Source: BP Statistical Review of World Energy, 2005.

2.3.3. New Suppliers to the Asia-Pacific Market

Apart from the traditional suppliers to the Asia-Pacific market, Qatar, Indonesia, Malaysia, Australia and Brunei, new entrants are expected: Peru (expected in 2013 from the Camisea field), Myanmar, which is still under discussion, Russia through the Sakhalin 2 project which will commence deliveries in 2008-09, as will Yemen. Iran's LNG exports are projected for around 2011[6].

2.4. Changes in LNG Markets

The gas market is witnessing strong changes both economically and structurally. In the Atlantic, the liberalised US market is emerging as a potential strong importer of LNG. The liberalising EU market is also witnessing stronger growth in consumption than production and diminishing reserves, which calls for growth in LNG and pipeline gas imports. In the Asia-Pacific, consumption of gas, and henceforth imports of LNG,

[6] Gas Strategies Online, August 2005.

continue to grow in Japan, Korea and also Taiwan. India and China are also entering the LNG-importing club and are expected to drive the growth in LNG trade in the Asia-Pacific.

As many LNG contracts come to maturity and new suppliers enter the market, there is increasing uncertainty surrounding the market structure of LNG, especially with expectations that contracts will be shorter, ToP (Take-or-Pay[7]) provisions lower and short-term/spot trade progressively increasing. Further, opening markets in importing countries and the needs of foreign investment in producing markets have favoured vertical integration of companies. These profound changes have also increased security of supply concerns.

[7] ToP – In a buyer's contract take-or-pay is the obligation to pay for a specified amount of gas whether this amount is taken or not.

3. THE GECF AND ITS EVOLUTION TO DATE

The Gas Exporting Countries Forum was set up in Tehran in 2001 to generate 'tangible cooperation among gas producing and exporting countries'[8]. According to a document proposed by the experts meeting (3-4 March 2001), and endorsed as a Mandate for the Forum by the Ministerial Conference in Tehran (19-20 May 2001), the aims of the forum are (i) to foster the concept of mutuality of interests by favouring dialogue between producers, between producers and consumers and between governments and energy-related industries, (ii) to provide a platform to promote study and exchange of views and (iii) to promote a stable and transparent energy market[9]. Research presented in the GECF is related to

- worldwide gas development projects;
- supply-demand balance for gas;
- gas exploration, production and transportation technologies, and their associated costs;
- the structure of the gas market, regional and global;
- competition of gas with alternative fuels;
- CNG and GTL economics;
- the contractual framework;
- ways and measures to improve the share of gas in the energy mix as well as other utilisation of gas;
- the kyoto Protocol and its impact on gas consumption;[10]

One of the important points that were made clear by these members is that this club is not, and is not intended to be, a so called 'Gas OPEC'[11]. There were platforms of discussions for oil exporting countries, for national oil companies, for energy consumers, but at that time none as yet for gas exporters. Gas trade emerging with strong growth and

[8] Communiqué from the Iranian Ministry of Petroleum, pursuant to the Ministerial Meeting, 2001 – also cited by the Algerian Ministry of Energy and Mines (www.mem-algeria.org).
[9] Document issued by the Iranian Ministry of Energy to the press shortly before the Ministerial Conference, 2001.
[10] Document issued by the Iranian Ministry of Energy to the press shortly before the Ministerial Conference, 2001.
[11] Document issued by the Trinidad and Tobago Ministry of Energy to the press shortly before the Ministerial Conference, 2005. Various declarations by the Algerian, Iranian, Trinidad, Qatari, Egyptian and other ministers on various occasions.

seemingly moving away from the status quo of rigid long-term contracts with monopoly utilities was deemed a plausible enough motivation for this Forum.

Since the meeting in Tehran, the forum has convened regularly. The second meeting was held in Algiers on 1-3 February 2002 and, under the presidency of Chakib Khelil, Minister of Energy and Mines for Algeria, on the margins of the eighth International Energy Forum in Osaka in 2002[12]. Projects discussed at this meeting included: a 'database' of gas projects and contracts terms and conditions, undertaken by the I.R. of Iran and presented as an 'easy-to-use software'. There was a study on new gas utilisations and associated costs, especially those related to LNG, to be undertaken by Qatar[13]. A round-table on the future trends of the EU gas market, to which EU consumers were invited, was co-hosted by Algeria and Russia.

At the Ministerial Meeting in Algiers, many references were made in relation to inviting gas consumers to attend. Importers' reaction, however, varied between scepticism and disregard. Gas being a different commodity than oil, it was deemed impossible for GECF members to have a coordinated export policy. Plus, there were many potential issues of confrontation between exporters that could have been serious enough to prompt coordinated export policies, but were not. Scepticism was motivated by the fact that seven of the eleven OPEC members were GECF members, from the discourse in some of the meetings and from the lack of information available about the Forum. For example, the White Paper on Energy, published by the Department of Trade and Industry in the UK, now an LNG net importer, stipulates that 'The development of a gas cartel amongst pipeline and LNG producers could undermine long-term price security'[14]. The GECF is also regularly referred to as a Gas OPEC in the making by the general media.[15]

[12] Algerian Ministry of Energy and Mines (www.mem-algeria.org).
[13] Cited in Chakib Khelil's speech in the Doha meeting on 4 February 2003 (source: Algerian Ministry of Energy and Mines website: www.mem-algeria.org).
[14] Energy White Paper: Our Energy Future – Creating a Low Carbon Economy, DTI, UK, 2003.
[15] "A New OPEC in the Pipeline", *Washington Post*, 20 October 2004 – 'And You Thought Oil was a Worry', *Yahoo News*, April 2006.

The third meeting held in Doha in (4-5 February 2003) showed the broadest participation to date. A pertinent definition of the Forum was given by Abdullah Bin Hamad Al-Attiyah, Minister of Energy and Industry for Qatar, who said

> 'We understand that importers don't depend usually on one supplier; and therefore one of this Forum's objectives is to work on marketing gas export projects as a group. We shouldn't consider each other just as competition. We also appreciate the need to support the Gas Exporting Countries Forum as it gives the opportunity to work together as producers and exporters so that we can develop our business and exchange views and technology. The second step, in my opinion, is to invite consumers to participate in dialogue to develop this industry'.[16]

At this meeting, amongst other things, Qatar submitted a proposal to the World Trade Organisation (WTO) to consider natural gas among environmental commodities and asked, and obtained, the Forum's support for the proposal. WTO members within the Forum were asked to support the proposal during the next Trade and Environment meeting in February 2003. Further, the Qatar meeting discussed the development of the supply-demand model as well as a feasibility study of entering into the electricity consuming market and its economic viability and legal limitations. Egypt and Iran were also asked to present their experiences with CNG.

The supply and demand model is an important project for the Forum as it aims to offer indications about prospective supply and consumption in the market, globally and regionally, and how GECF members will meet this demand within the next 20-30 years. In effect, the model could help GECF members 'regulate' over-capacity. Chakib Khelil described the model as 'a simulation scheme for natural gas demand and supply, at regional and global levels, so that members of the Forum may have a better perception of the major trends of the industry; this indeed will be useful and helpful to assist investors in their decision making exercise for developing gas projects'[17]. In theory, the model

[16] Speech to the Ministerial Conference of the GECF in Doha, 4 February 2003 (source: Qatar Petroleum website: www.qp.com.qa).

[17] Cited in Chakib Khelil's speech at the Doha meeting on the 4 February 2003 (source: Algerian Ministry of Energy and Mines Website: www.mem-algeria.org).

would use, in part, the contracts database discussed above. Consultants, such as Wood Mackenzie, interested in building the model for the Forum have been invited to the Algiers meeting.

The Cairo meeting in 2004 set up an 'Executive Bureau' of the GECF. The Egyptian delegation has also discussed proposing potential avenues for a move away from indexation of gas contracts to oil prices[18]. The Executive Bureau met again in July 2004 and January 2005 under the Egyptian presidency.

The Trinidad meeting on 25-27 April 2005 was marked by a lower attendance of delegations; Oman, Libya and Indonesia did not attend and only the Trinidad and Tobago, Iranian, Emarati and Qatari delegations were headed by their respective ministers. In this meeting, a Liaison Office, to be located in Qatar[19] (according to senior Qatari officials, to be located more precisely in the Qatar Petroleum Complex) was proposed by the Executive Bureau and adopted by the Ministerial Conference.

With oil prices at the time of the meeting at around $50 per barrel, the Egyptian proposition to move away from price indexation, proposed in the Cairo meeting, did not seem to have been followed up. One of the important issues of discussion was the design of a supply-demand model, discussed above. The Algerian delegation was selected to lead the project by working on terms of reference and selecting consultants. Once completed, the Ministerial Conference agreed, the model would be housed at the Liaison Office.

The GECF members unanimously agreed that the next Ministerial Conference be held in Venezuela around March 2006.

[18] 'Consensus on Egypt's Proposals at International Gas Exporting Countries Forum', Egyptian State Information Services, 2002
[19] The GECF fifth Ministerial Meeting Press Communiqué Document issued by the Trinidad and Tobago Ministry of Energy, 26 April, 2005.

3.1. Membership and Attendance of the GECF

The membership structure of the GECF has been volatile. For example, Turkmenistan, a founding member, only attended the first meeting. Bolivia only attended the second meeting. As table 3-1 below shows, Egypt and Venezuela joined at the Algiers meeting and Trinidad and Tobago (T&T) and UAE in 2003. Equatorial Guinea, an observer at the 2005 meeting, was adopted as a member by the Ministerial Conference at the Trinidad meeting. As mentioned above, Indonesia, Libya and Oman did not send delegations to the 2005 meeting.

Since there are no statutes or charters for the GECF, and no membership fees, it is not clear what constitutes membership, and the difference between the latter and the observer status of Norway.

The status of Russia (a founding member which has attended all meetings) was also unclear at the 2005 meeting where Russia's delegation was headed by its Ambassador. There were contradictory reports that Russia was attending the meeting as observer. It is important to note that in 2006, Russia will host the G8 Summit, where energy security will be at the forefront of the agenda.

The low attendance at the Trinidad meeting, of both delegations and ministers, was attributed by many to travel requirements. The meeting in Port of Spain was the first time that the GECF meeting was held outside the MENA (Middle East and North Africa) region. It was argued by many delegates that it is 'difficult to justify 40 hours of travel time, for a minister, for 8 hours of meetings'.

The Port of Spain meeting aside, Figure 3-1 shows that the reserves' share of GECF members has grown from 74 per cent in Tehran to 87 per cent in Cairo, and their LNG export share from 80 per cent to 92 per cent, respectively. With Turkmenistan only attending the first meeting and UAE and T&T joining, it is clear that the centre of gravity of the GECF has moved towards LNG as opposed to pipeline trade – though GECF membership still controls about 40 per cent of gas traded by pipeline. Indeed, since every member is an LNG exporter, an LNG exporter-to-be or an LNG exporter hopeful, the GECF is becoming more of an ‘LNG Exporting Countries Forum’.

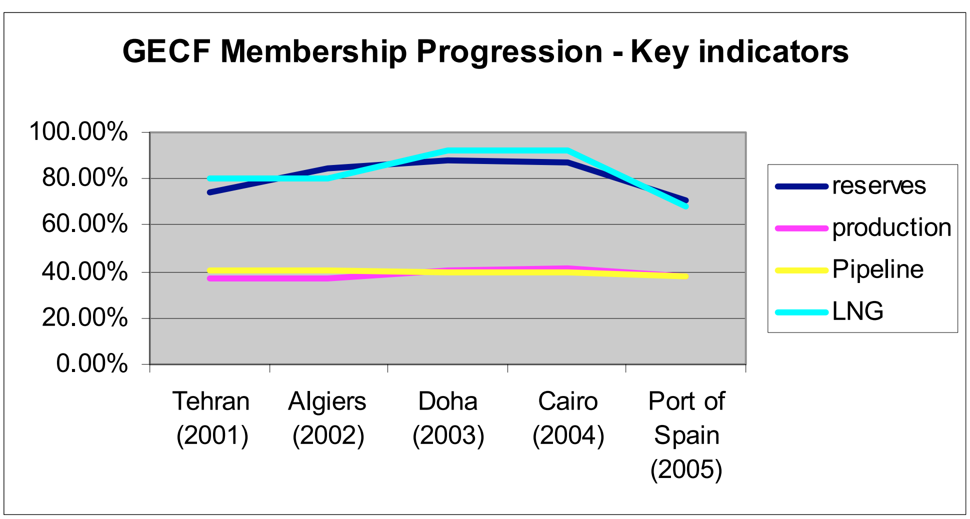
Table 3-1: Members of the GECF

Tehran, 2001	Algiers, 2002	Doha, 2003	Cairo, 2004	Port of Spain, 2005
Algeria (P/L)	Algeria (P/L)	Algeria (P/L)	Algeria (P/L)	Algeria (P/L)
	Bolivia (P)			
Brunei (L)	Brunei (L)	Brunei (L)	Brunei (L)	Brunei (L)
	Egypt (P/L)	Egypt (P/L)	Egypt (P/L)	Egypt (P/L)
				Equt Guinea (L)
Indonesia (L)	Indonesia (L)	Indonesia (L)	Indonesia (L)	
Iran (P)	Iran (P)	Iran (P)	Iran (P)	Iran (P)
	Libya (L)	Libya (L)	Libya (P/L)	
Malaysia (L)	Malaysia (L)	Malaysia (L)	Malaysia (L)	Malaysia (L)
Nigeria (L)	Nigeria (L)	Nigeria (L)	Nigeria (L)	Nigeria (L)
Oman (L)	Oman (L)	Oman (L)	Oman (L)	
Qatar (L)	Qatar (L)	Qatar (L)	Qatar (L)	Qatar (L)
Russia (L)	Russia (P)	Russia (P)	Russia (P)	Russia (P)
Turkmenistan (P)				
		T&T (L)	T&T (L)	T&T (L)
		UAE (L)	UAE (L)	UAE (L)
	Venezuela	Venezuela	Venezuela	Venezuela
Norway* (P)		Norway* (P)	Norway* (P)	Norway* (P)

Source: Soligo, R. and Jaffe A. ‘Market Structure in the New Gas Economy: Is Cartelization Possible?’, 2004 – Qatar Petroleum Website (www.qp.com.qa/qb.nsf/print.htm) – various press releases issued at the meetings and, for the Port of Spain meeting, a document distributed by the organisers to the press.

Note: * indicates observers; ‘P’ indicates pipeline exporter; ‘L’ indicates LNG exporter

Figure 3-1: Evolution of the world reserves share, production share, pipeline and LNG market shares of the GECF attendants at the five meetings



Source: Author’s calculation based on data from the BP Statistical Review of World Energy, 2005.

Not all exporters are GECF members and not all members are exporters: Norway (which accounts for 25 per cent of the EU pipeline imports), Canada (which accounts for 19 per cent of US gas consumption) and Australia (which has a 10 per cent market share in Asia-Pacific LNG trade)[20] are not members of the Forum and, with the exception of Norway, have never attended a GECF meeting. On the other hand, Venezuela, which was expected to chair the GECF in 2006, is not yet a gas exporter and there is no firm date by which it might become one. Also, though Iran exports gas to Turkey by pipeline, it is still a net importer of gas as it imports more from Turkmenistan, by pipeline[21]. This is in contradiction to the Founding Document endorsed at the Tehran Conference, which stipulates that being a net exporter is a requirement to join the Forum.

As seven OPEC members are also members of the GECF, there is a sense of national tradition in joining an organisation like the GECF. By contrast, Russia has never shown any inclination to join OPEC, despite its importance as an oil producer and exporter over the past several decades. However, its importance as an exporter to Europe is so significant that its future involvement and relationship with the Forum in the future is of great importance.

As is the case in OPEC, the members of the GECF are states, but delegations often include representatives of national oil/gas companies. In fact, Executive Bureau representatives are from the national oil company or from the ministry (Table 3-2). When there are institutional barriers between the two, the link between ministries and oil companies is usually twofold.

(i) Since many members of the GECF national oil companies have monopoly access to reserves as well as carrying out many functions of the logistical process within the country (e.g. production, transportation and commercialisation), the institutional barrier between the ministry and the national oil company is subtle. However, this is changing as the legislative structure in many countries is undergoing reform.

[20] *BP Statistical Review of World Energy*, 2005.

[21] Cedigaz, Natural Gas in the World, 2004.

(ii) States are also shareholders, in most cases the only ones, of the national oil companies. In some cases 'Supreme Energy Councils' chaired by the Head of State use the ministries and national oil companies (NOCs) as vehicles for strategic policy implementation.

The involvement of NOCs in the GECF will therefore continue even if the legislative structure in some GECF member states is changing. As some of the NOCs in the GECF are ambitious to access regasification, and further downstream, stakes within importing markets, having governments involved offers more protection against legal liabilities such as those relating to anti-competitive and anti-trust behaviour. Therefore, the Forum will continue to be a Forum of nations (at the ministerial level), not a Forum of NOCs.

Table 3-1: Selected GECF members and NOCs

Selected GECF members	Importance of the Oil/Gas sector to the Economy	State Ownership of Liquefaction Capacity (Direct/indirect) Note: 1	NOC	State ownership of NOC Note: 2	Executive Bureau Representative from Note: 3
Atlantic					
Algeria	Export revenues (95%), fiscal revenues (70%) and GDP (40%)	100%	Sonatrach	100%	NOC
Libya	Export revenues (95 %) and fiscal revenues (75%)	100%	NOC	100%	
Nigeria	Export revenues (9 %) and fiscal revenues (80%)	49%	NNPC	100%	
Trinidad and Tobago	Export revenues (70%) and fiscal revenues (25%)	about 5%	NEC/NGC	100%	
Egypt	GDP (7%)	about 24%	EGPC/EGAS	100%	NOC
Venezuela	Export revenues (75%) and fiscal revenues (45%)	N/A	PDVSA	100%	Ministry
Middle East					
Oman	Fiscal revenues (70%) and GDP (40%)	about 45%	Oman LNG	51%	
UAE	Fiscal revenues (63%) and GDP (30%)	about 30%	ADNOC/ADGAS	100%	Ministry
Qatar	Fiscal revenues (75%) and GDP (31%)	about 65%	Qatar Petroleum (100%), RasGas (70%), RasLaffan (70%)		NOC
Iran	Fiscal revenues (45%), export revenues (80%)	N/A	NIOC/NIGEC	100%	NOC/Ministry
Asia-Pacific					
Indonesia	Gas represents 10% of export revenues	about 55%	Petramina	100%	
Malaysia	GDP (16%)	about 88%	Petronas	100%	Ministry
Brunei	GDP (90%)	50%	Brunei Shell Company	50%	

Notes:
1: Author's calculations based on Gas Strategies Online data.
2: Author's calculations based on Gas Strategies Online data.
3: Author's conclusions from document issued to the press by the Trinidad and Tobago Ministry of Energy at the Ministerial Conference, 2005.

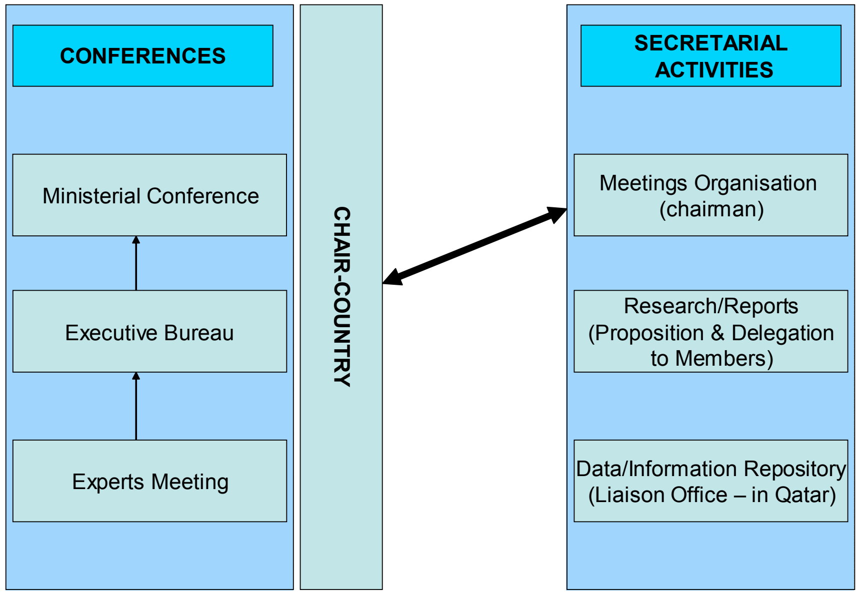
3.2. Structure of the Forum

Throughout the five rounds of meetings that the GECF has had, a structure has progressively emerged, as illustrated by Figure 3-2.

3.2.1. The Ministerial Conference

The Ministerial Conference comprises energy, oil, petroleum or industry ministers of the member/observer states. Alternatively and occasionally, senior ministry or national oil/gas company officials or ambassadors act on behalf of the ministers. The Ministerial Conference is the highest instance of the GECF in that it has the power to adopt decisions relative to the GECF, such as the inclusion of new members, decisions on the next chairmanship and other decisions such as delegating research to one country or, as in the Trinidad meeting, the setting up of a Liaison Office. Heads of states of the host (chair) country generally address the Ministerial Conference at the opening ceremony. The Ministerial Conference meets once a year. So far, no decision by the Ministerial Conference on actual natural gas exports policies has been reported. Some representatives on the Executive Bureau have stated that this is an illustration that the GECF is not an OPEC in the making.

Figure 3-2 Author's diagrammatical representation of the GECF structure



3.2.2. Executive Bureau and Experts Meetings

The Executive Bureau and the Experts Meetings comprise senior and middle-ranking officials from the relevant ministries or the national oil/gas companies. They are mandated to complete research, and when required, carry out semi-technical and technical discussions. The Executive Bureau proposes decisions to be adopted by the Ministerial Conference and they meet two or three times a year hosted by the chair country[22].

3.2.3. Secretarial Activities

Secretarial activities can be separated into three categories:

1. Organisational activities, such as meetings, accommodation of delegates, publication of documents etc, are undertaken by each chair country for the duration of their chairmanship (one year).

[22] Author's conclusions from a document issued to the press by the Trinidad and Tobago Ministry of Energy at the Ministerial Conference, 2005.

2. Technical activities, related to policy and analysis are usually supervised by one of the delegations on their own initiative (and adoption by the Ministerial Conference). Examples are the Egyptian proposal for a move away from oil price indexation (the Egyptian Ministry set up a committee headed by the Ministry's Director of Gas in which consultations were carried out with other exporters and gas consumers to review gas indexation clauses in gas trade contacts[23]) and the Algerian delegation is managing work on the supply-demand model (elaboration of the terms of reference, invitation of bids by consultants etc.).

3. The Liaison Office, which was set up in Qatar by the Ministerial Conference meeting in Port of Spain, 2005, will be the depository of data, relevant software and models.

GECF delegates have made it clear that a secretariat is not being considered.[24] This makes sense from the logistical point of view: the membership base is still 'volatile' and the Forum is still young. The secretarial needs of the Forum – especially in the technical level – do not yet justify a full-scale secretariat (and may not for some years). Also, establishing a secretariat entails introducing membership fees and, in the same spirit, the elaboration of statutes or a legal charter. It appears that GECF members, probably in view of the age of the Forum, aim to keep the flexibility that they enjoy at present. On a political level, a secretariat could send a strong signal for integration. This being said, a secretariat (with a website, an address and a phone number) would bring more transparency to the Forum. It is difficult to obtain reliable information about GECF as methods of organisation by different chair countries are different and
there is little uniformity in information distribution.

[23] Author's communication with. Sameh Fahmi, Minister of Petroleum for Egypt
[24] Author's communication with Mr H. Kozempour, Iranian Representative to the GECF Executive Bureau.

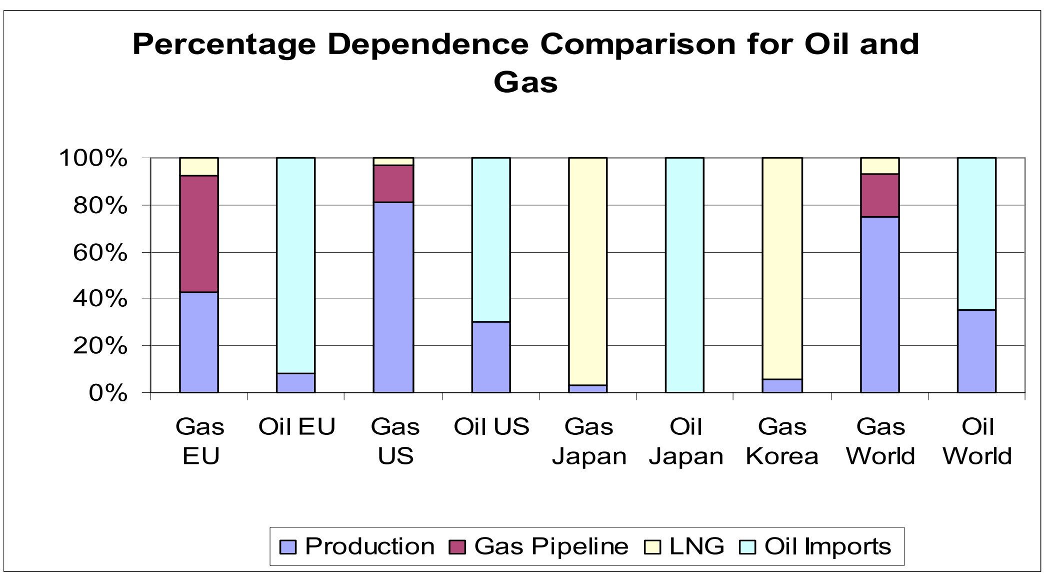
4. CURRENT AND POTENTIAL MARKET SHARES FOR THE GECF AND OTHER POTENTIAL GROUPINGS

4.1. Dependence on Natural Gas Imports

As discussed in Chapter 2, the Asia-Pacific markets of Japan, Korea and Taiwan have been virtually created by imports of LNG. Apart from the emergence of China and India as strong growth consumers and importers of gas (and oil), as Section 2.3.2 shows, the near-total dependence of the Asia-Pacific market on imports, as Figure 4-1 shows, is not expected to change significantly.

Compared with the Asia-Pacific, LNG still represents a small proportion of gas supplies and imports in the Atlantic market. This being said, production in the US and the EU is not keeping pace with consumption (Sections 2.2.1 and 2.2.2). Natural gas imports in the Atlantic are therefore poised to grow significantly.

Figure 4-1: Comparison between dependence on imported gas and oil in the EU, US, Japan, Korea and worldwide in 2004



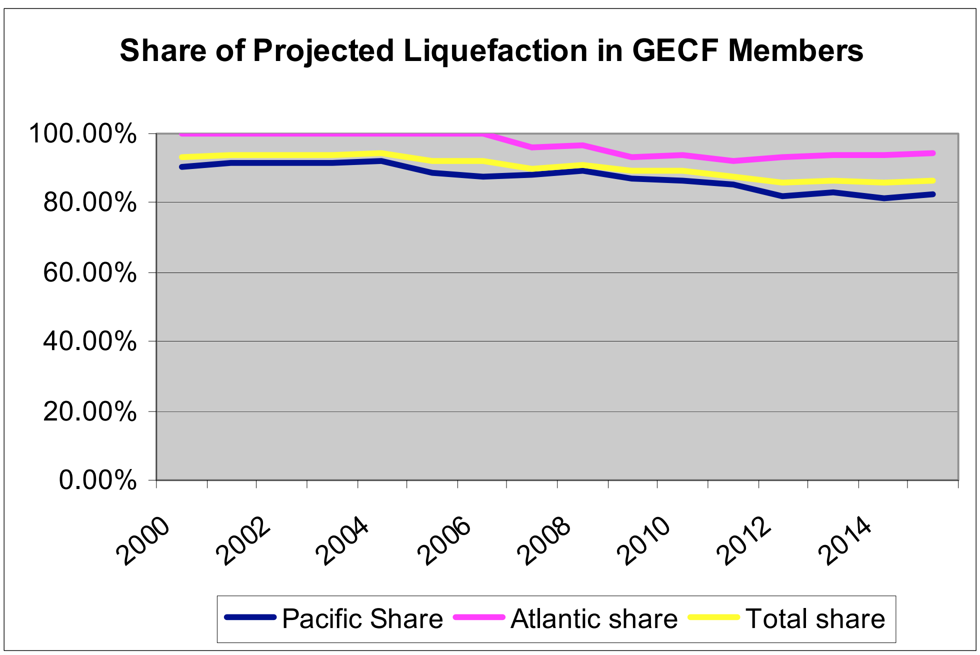
Source: Cedigaz, Natural Gas in the World, 2004 and BP Statistical Review of World Energy, 2005.
Note: Oil bars include domestic vs imported oil. gas bars include pipeline, LNG and domestic. World oil and world gas bars include worldwide traded oil and pipeline and LNG for gas against world consumption.

4.2.LNG

4.2.1. LNG Liquefaction Capacity and the GECF

As Figure 4-2 shows, GECF member states host a significantly large share of the LNG liquefaction capacity in both the Atlantic and Asia-Pacific markets, and worldwide. This share is highest in the Atlantic, currently nearing 100 per cent and decreasing as non-GECF member projects are launched, in Norway for instance. The share is lower in the Asia-Pacific, but still high at 90 per cent and decreasing to 82 per cent as Australian liquefaction capacity grows.

Figure 4-2: Current, under-construction, planned and proposed (on aggregate) share of liquefaction capacity for GECF members in the Atlantic, Asia-Pacific and Worldwide



Source: Authors' calculations based on Gas Strategies Online data on liquefaction capacity, under-construction, planned and proposed plants.

4.3. Other Potential Institutional Groupings and Market Shares

If the GECF's membership is too 'diluted' in terms of the strategies of individual countries with different export profiles, perhaps smaller combinations of like-minded or regional groupings, might find it easier to develop common policies and market power. We examine below some of these potential groupings.

4.3.1. OPEC

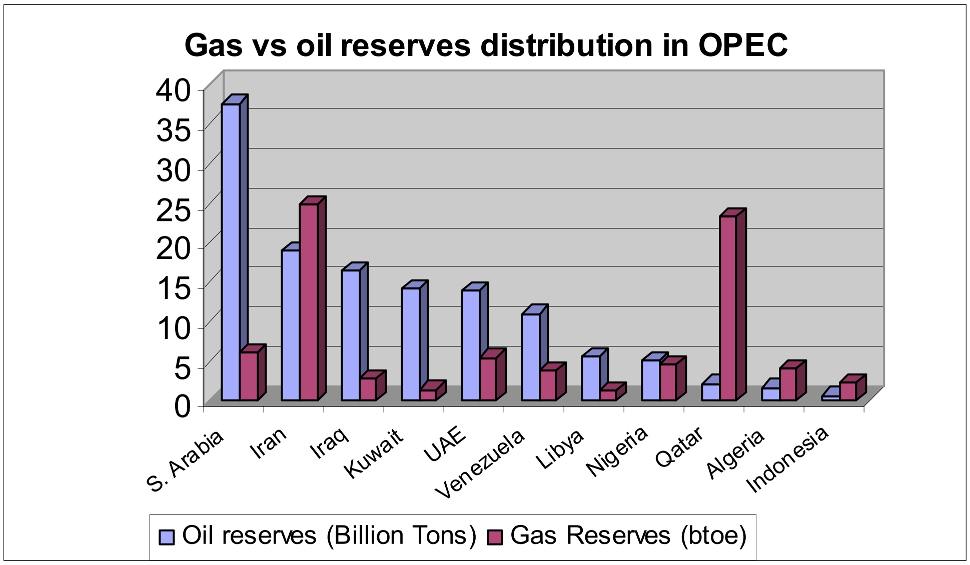
The Organisation of Petroleum Exporting Countries is the most important energy export organisation. Section 5.1 will discuss it in more detail. OPEC is a potential 'like-minded' grouping as a platform for gas exporters for different reasons: seven of OPEC's members are also GECF members; OPEC already has a large secretariat with in-house models for oil (and gas) supply and demand. Indeed, discussions about gas were on the agenda of some OPEC Ministerial Conferences. More importantly, OPEC already has an important role in the gas industry through its power over oil prices, bearing in mind that gas prices in many markets are indexed to oil. Where gas is a by product of oil, OPEC production quotas also have an effect on gas production.

However, Saudi Arabia (which is not interested in gas exports thus far) and Iraq, which have the world's largest reserves of oil, are not, as yet, significant potential gas exporters. Given the former's power in OPEC, it is not probable that any major decisions will be taken with regard to coordinated gas export policies by OPEC.

4.3.2. OPEC members that are also GECF members

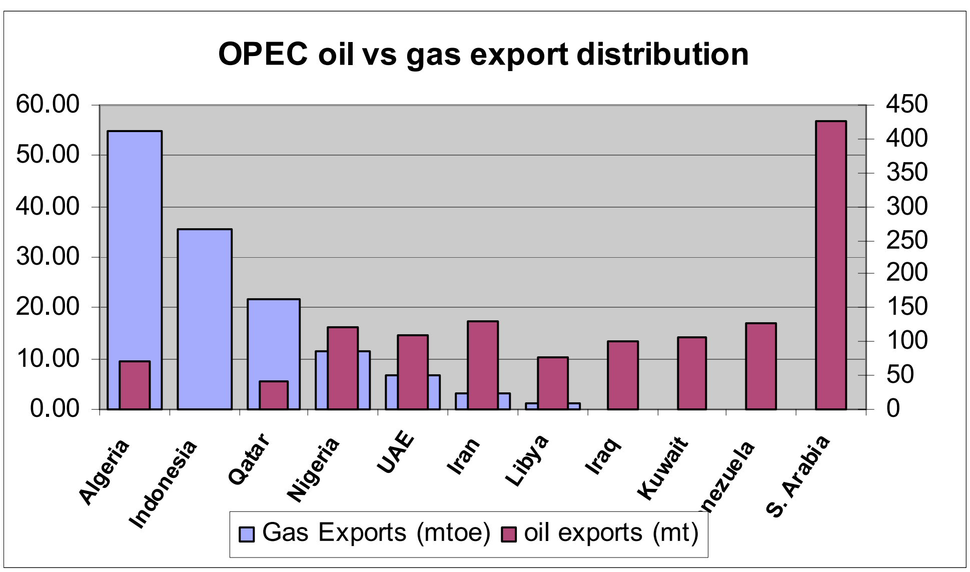
It is important to consider this 'group' (Algeria, Indonesia, Iran, Libya, Nigeria, Qatar and Venezuela) as ministries and national oil/gas companies within these countries already cooperate together, and ministers know each other personally through OPEC, which strengthens their potential for cooperation on gas issues. The potential for coordinated export policies, however, remains limited as this would sideline other GECF members. Plus, discussions within this potentially 'like-minded' grouping would require, due to the number of countries, the setting up of another 'structure' which seems very unlikely.

Figure 4-3: Gas vs oil reserves distribution in OPEC, 2004



Source: BP Statistical Review of World Energy, 2005.

Figure 4-4: OPEC oil vs gas export distribution



Source: BP Statistical Review of World Energy, 2005.

4.3.3. Iran, Qatar and Algeria

This sub-group of GECF and OPEC has proved to be the driver of the GECF. Iran, Algeria and Qatar have organised the first three meetings and have attended every single meeting ever since, and they have been particularly active in its evolution: Iran delivered the contract database software, Qatar hosts the Liaison Office and Algeria leads one of the most important projects of the GECF to date, the supply-demand model. Ministers and senior officials in these countries know each other from OPEC and their export profiles are broad.

Iran has OPEC's largest gas reserve and the world's second, it exports by pipeline but aims to start expanding its LNG potential significantly. Being 'oil rich, gas rich', it is in effect a 'sleeping giant' with important potential. However, many projects proposed have been significantly delayed in the past; and the current political situation may significantly delay these projects further.

Qatar is one of the world's largest LNG exporters and is the only country that is developing the potential to sell large volumes of LNG to both the Asia-Pacific and Atlantic markets. With unprecedented investments in LNG infrastructure, Qatar is positioning itself as a 'swing producer' *par excellence,* with extremely large reserves, within economic reach of the Atlantic and Asia-Pacific markets and ample liquefaction and shipping capacity.

Algeria is the oldest, and most experienced, LNG exporter in the world and is the only country, to date, which enjoys a diversified LNG/pipelines export capacity. Algeria, which does not have significant sales potential in the Asia-Pacific market, has a central role in the Atlantic with pipeline capacity to the EU and LNG to the US.

On the strategic level, it is a known fact that there is a strong rivalry between Iran and Saudi Arabia within OPEC. The GECF is Iran's opportunity to take a leading role in an energy export group, even though it is not yet a significant exporter. Algeria and Qatar, the so-called 'gas rich, oil poor' (Figure 4-3 and Figure 4-4) do not have sustainable power within OPEC. Their gas profile allows them to take a leading role in the GECF.

Iran, Algeria and Qatar, combined, currently have a comparatively low market share in their most important market, the EU (Figure 4-6), which allows for small incentives to work on exclusive coordinated policies. This being said, their share in incremental exports in the Atlantic Basin is large[25] and discussions at the bilateral or trilateral level with other nations have the potential to yield more targeted coordinated export policies as well as to help identify opportunities for partnership. This will be discussed further in Chapter 5.

4.3.4. AFREC (African Group – African Energy Commission)

The African Energy Commission (AFREC) was set up in 2001 by the Organisation of African Unity (now the African Union). One of its aims is to ensure, coordinate and bring harmony to the protection, conservation, development, rational exploitation, commercialisation and integration of the energetic resources of the African continent[26]. Gas exports are therefore technically within its mandate and many important LNG exporters to the Atlantic are member states: Algeria, Nigeria, Libya, Egypt as well as Equatorial Guinea and Angola. This being said, no discussions on this subject have been conducted under the auspices of the African Union and the support of AFREC.

It is plausible that there will be discussions on the integration of energy policies in Africa, including export policies. One example to mention is the recent cooperation of Algeria and Nigeria which has yielded the proposed project of NIGAL (Nigeria-Algeria pipeline, which could allow Nigerian gas to be exported via pipeline to Spain and Italy through the Algerian planned and current pipeline infrastructure – this project is, at the time of writing, the subject of a feasibility study).

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[25] IEA, *World Energy Outlook, 2005*.
[26] Afrec website: http://afrec.mem-algeria.org

4.3.5. OAPEC

The Organisation of Arab Petroleum Exporting Countries was set up in 1968 by Kuwait, Libya and Saudi Arabia. Since then other Arab countries have joined: Algeria (1970), Bahrain (1970), Egypt (1973), Iraq (1972), Qatar (1970), Syria (1972), Tunisia (1982) and United Arab Emirates (1970)[27]. Cooperation through this organisation has yielded the creation of a number of companies and projects. It was also the platform for the Arab Oil Embargo in 1973. Although Oman, a noteworthy LNG exporter, is not a member and other powerful members of the organisation, such as Saudi Arabia, are not gas exporters, there is still potential for focused discussions on gas, especially because of the potential to increase market share in Europe.

4.3.6. ASEAN[28]

ASEAN, The Association of South East Asian Nations, was established in 1967 in Bangkok by Indonesia, Malaysia, the Philippines, Singapore and Thailand. Brunei, Vietnam and Cambodia joined subsequently. The aims of this organisation are to accelerate economic growth, social progress and cultural development. Indonesia, Malaysia and Brunei are members of the GECF and ASEAN. However, the latter organisation also includes gas importers or importers-to-be (Thailand and Singapore, for example). It is also an organisation with an active energy dialogue through its Annual Ministers of Energy Meeting. In fact, those members of GECF in ASEAN usually report at this meeting on the new developments at the previous GECF meeting[29]. ASEAN is therefore not likely to be used as a vehicle for coordinated export policies.

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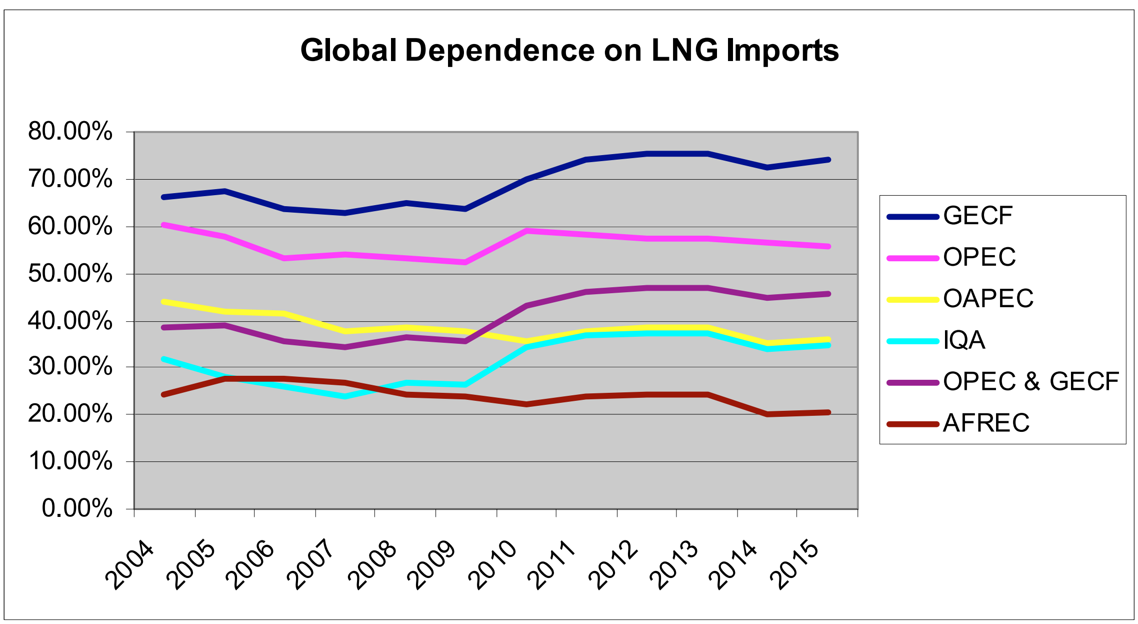
[27] OAPEC website: http://www.oapecorg.org
[28] ASEAN website (www.aseansec.org)
[29] Joint Press Statement Nineteenth ASEAN Ministers on Energy Meeting (www.aseansec.org/565.htm)

4.4. LNG Market Share for GECF and other Potential Regional Groupings

4.4.1. World

In terms of LNG contracted volumes, at the 2015 horizon, the GECF will have a strong global market power in the region of 75 per cent-80 per cent (Figure 4-5). This is, however, not particularly significant as LNG accounts for only 6 per cent of global gas demand (Figure 4-1) and there is little potential for GECF members to combine their global market power due to different export markets, different challenges and potentially diverging interests. At a regional level however, market power may be higher, with increased potential for targeted coordinated export policies.

Figure 4-5: Global dependence on LNG imports of GECF and other potential regional groupings

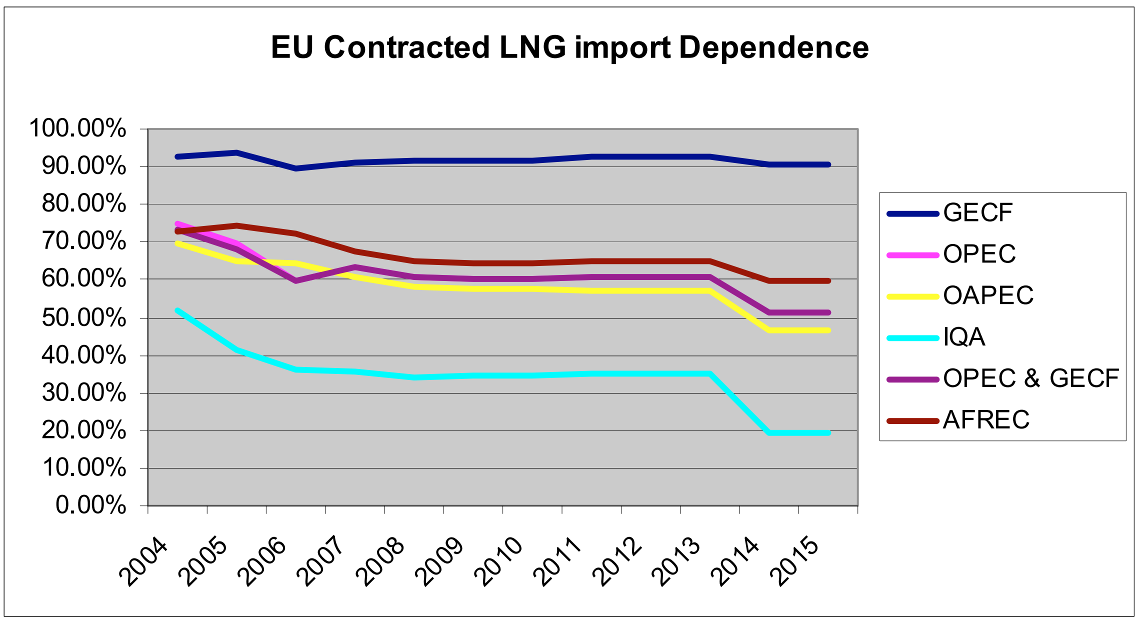


Note: Authors' calculations of currently contracted and signed contracted volumes (not projections or forecasts) calculated using publicly stated quantities, date of start and initial duration using data from Gas Strategies Online. 'IQA' stands for Iran Qatar Algeria and 'OPEC & GECF' refers to those countries that are members of both organisations.

4.4.2. EU

The GECF has a strong import share in the EU (sustainably higher than 90 per cent). OAPEC and AFREC have declining but high shares (around 70 per cent at present declining to 45 per cent and 60 per cent respectively in 2015). Many GECF members' concerns are related to regulatory changes in the EU, as will be discussed below. It is also worthwhile noting that LNG represents 8 per cent of EU gas demand (Figure 4-1) and that three of the five current pipeline suppliers of the EU are members of the GECF (Algeria, Russia and Libya).

Figure 4-6: EU contracted LNG import volumes dependence on GECF and other potential institutional groupings

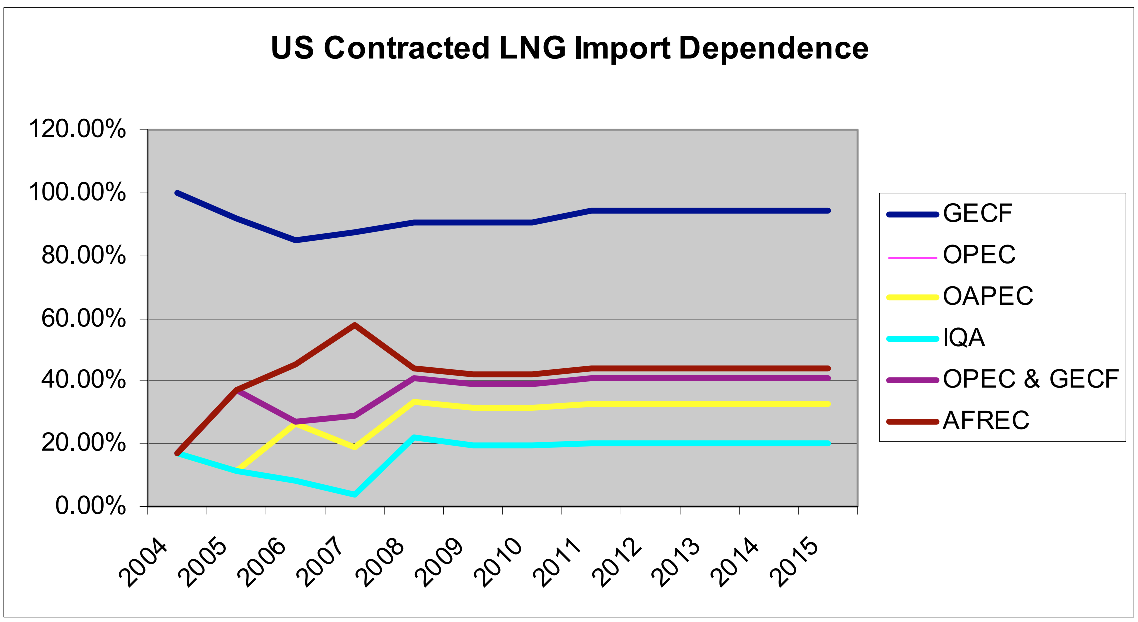


Note: Authors' calculations of currently contracted and signed contracted volumes (not projections or forecasts) calculated using publicly stated quantities, date of start and initial duration using data from Gas Strategies Online. 'IQA' stands for Iran Qatar Algeria and 'OPEC & GECF' refers to those countries that are members of both organisations.

4.4.3. US

The US is the least dependent on LNG for its gas consumption (3 per cent albeit growing), but within its LNG imports it is the most dependent on the GECF. This is due to the high expected market share of Trinidad and Tobago, Algeria and Nigeria, all of which have a good political relationship with the US. For GECF members, the US market is open, transparent and growing (with high prices, at the time of writing) and is therefore a preferred market, not likely to face a hypothetical coordinated export policy from the GECF.

Figure 4-7: US contracted LNG import volumes dependence on GECF and other potential institutional groupings

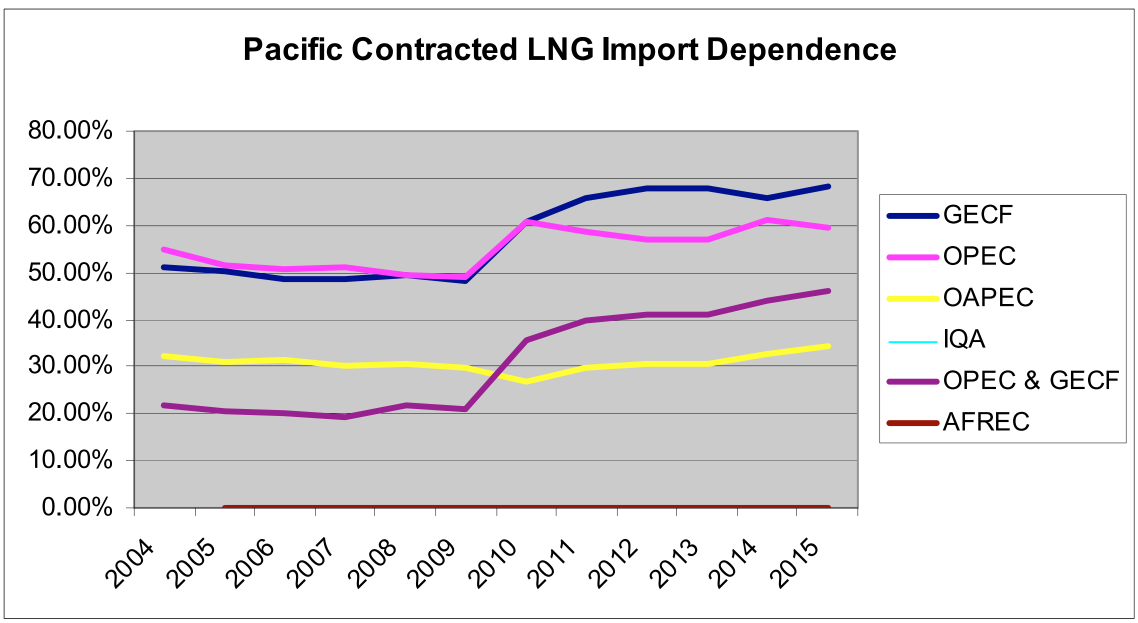


Note: Authors' calculations of currently contracted and signed contracted volumes (not projections or forecasts) calculated using publicly stated quantities, date of start and initial duration using data from Gas Strategies Online. 'IQA' stands for Iran Qatar Algeria and 'OPEC & GECF' refers to those countries that are members of both organisations.

4.4.4. Asia-Pacific

The Asia-Pacific market (Japan, Korea, Taiwan, China and India) has the lowest, but growing, dependence on the GECF, due to the comparatively important share of Australia in Asia-Pacific LNG trade. Japan and Korea are, however, the most dependent on LNG exports (Figure 4-1). As discussed in Chapter 5 below, significant integration of the Asia-Pacific GECF members is not expected.

Figure 4-8: Asia-Pacific contracted LNG import volumes dependence on GECF and other potential institutional groupings



Note: Authors' calculations of currently contracted and signed contracted volumes (not projections or forecasts) calculated using publicly stated quantities, date of start and initial duration using data from Gas Strategies Online. 'IQA' stands for Iran Qatar Algeria and 'OPEC & GECF' refers to those countries that are members of both organisations.

5. THE GECF, INSIGHT AND AVENUES

5.1. OPEC and the GECF, Similarities and Differences

Members of the GECF are keen to stress that the GECF is not a ‘GAS OPEC’. There is no collegial intention for such an organisation to be formed, and even less for gas to be used as a ‘weapon’. Further, many factors, discussed in this section, would be impediments. To some gas consumers, however, there are concerns that the GECF may evolve into a ‘cartel’.

5.1.1. In Terms of Stated Aims and Objectives

When OPEC was first created at the Baghdad Conference of 1960 by Iran, Iraq, Kuwait, Saudi Arabia and Venezuela, its objective was to unify oil policies so as ‘to ensure the stability of oil markets in order to secure fair revenues to petroleum producers’. At the time, the international petroleum companies, the so-called ‘Seven Sisters’ dominated the oil market and a wave of oil company nationalisations in the 1960s and 1970s was going on in many countries that are now members of OPEC. One of OPEC’s stated aims was to ensure better distribution of revenues from those international oil companies.[30]

In spite of a different international, and industry context, the stated objectives of the GECF are very similar to those of OPEC at that time. Erik Williams, the then Trinidad Oil Minister stated at a press conference at the fifth GECF Ministerial Conference: ‘We are committed to come up with a fair price for consumers and producers’. According to the GECF 2005 chair: ‘It must be stated that the GECF is not a cartel as it does not seek to control the formative gas market in terms of pricing and supply, but rather seeks to promote stability and sustainability in the industry’.

[30] OPEC website: http://www.opec.org

The Russian newspaper *Izvestia* quoted the deputy chairman of Gazprom, Alexander N. Ryazanov, as saying about the GECF: 'I think that it is in our countries' interests to sell gas at the highest price possible. That is why one has to stick to correct approaches and coordinated policy'[31].

5.1.2. In Terms of Membership and its Consolidation

In its first decade of its existence, OPEC went through a period of adjustment and consolidation and only started to have an impact on oil markets in the 1970s. Erik Williams, speaking about the GECF, stated: 'We did not want to give the impression we are going the way of OPEC . . . I can't speak for what may happen 10 years down the road'. The changing membership structure of OPEC then (something the GECF is also witnessing now) and its evolving structure meant that trust took time to be established between the members and coordinated policies took a decade to be implemented.

As will be discussed below, GECF members do not necessarily have converging interests. In fact, they sometimes have strongly diverging and competing interests, which could make cooperation difficult. But this was also the case for OPEC, where there has always been a struggle between price stabilisers (countries with high reserves), market-share seekers and revenue maximisers (populous countries and countries with small reserves and diversifying economies).

As is the case with OPEC, many gas exporters are not members of the GECF. A noticeable difference, nonetheless, is that, in OPEC, it is a membership requirement to actually be an exporter of oil, which is not the case with the GECF, which includes members who are not gas exporters.

5.1.3. In Terms of Structure

Another interesting feature is that the GECF is slowly adopting a structure similar to OPEC, on a smaller scale. As Figure 5-1 shows, the GECF's highest 'body', the Ministerial Conference, has similar prerogatives to the OPEC Conference, which is also usually composed of Ministers of Energy of the member states. The Board of Governors,

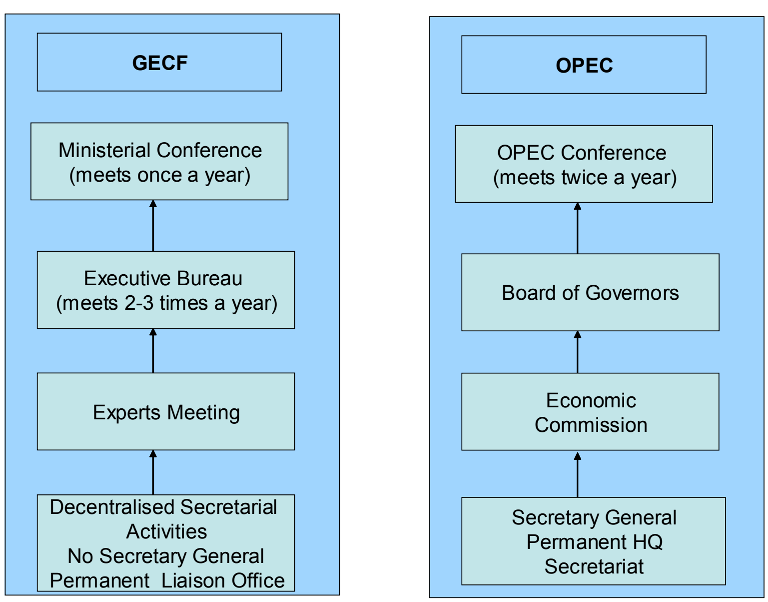
[31] "Russia to Consolidate Natural Gs Mrket", 14 July 2004 (Newspaper website: http://www.izvestia.ru).

whose function is primarily to serve as a board of directors for the secretariat, is also mandated to prepare the agenda of the OPEC Conference, which is also one of the functions of the Executive Bureau of the GECF, which also includes members of different national delegations. In fact for Iran, Nigeria and Venezuela, the representatives on the GECF Executive Bureau are themselves the representatives of these countries on the OPEC Board of Governors.

Apart from the scale of operations, the main difference between OPEC and the GECF, structurally, is the Secretariat, through which flow statutes and membership fees. The GECF is – still – a loosely structured organization where secretarial activities (organisation of meetings and research) are conducted by member states on a voluntary basis.

The absence of statutes marks the most important structural difference between OPEC and the GECF. The GECF, under its present 'legal' structure, is not endowed to be a decision-making body. Decisions of the Ministerial Conference are only related to structural or procedural matters, not to actual market issues (production and standards).

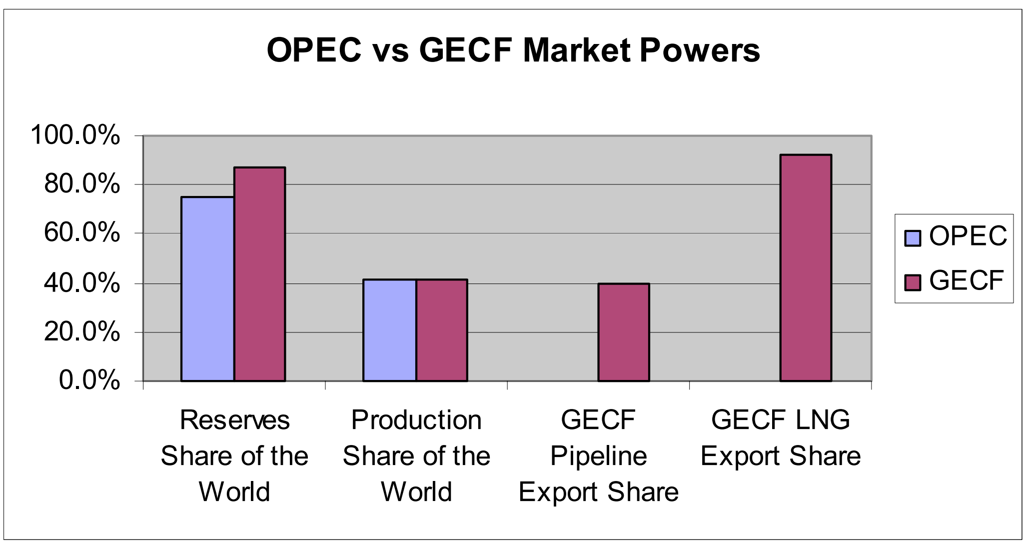
Figure 5-1: OPEC and the GECF, Similarities and Differences in Structure



5.1.4. In Terms of Market Power

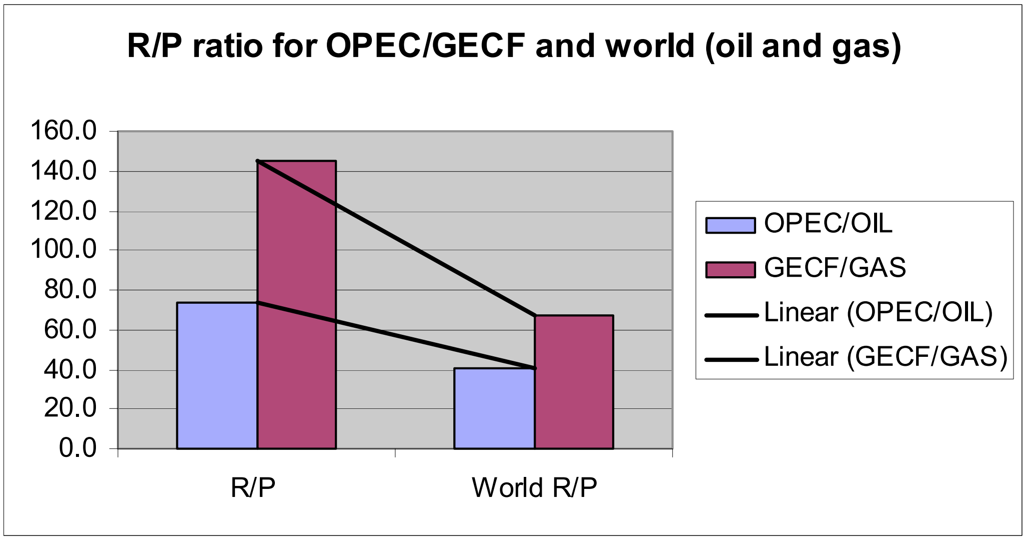
As Figure 5-2 and Figure 5-3 show, the GECF has more market share in terms of reserves share and LNG trade than OPEC as well as a higher reserve to production (R/P) ratio, in absolute terms, and in relative terms compared to the world's R/P ratio. Although the production shares of the GECF and OPEC are similar at the moment, the reserves share suggests that the production power of the GECF is likely to grow higher in the future. In specific markets, however, as Figure 4-1 suggest, the dependence on oil exports is higher than on those of gas, which offsets the difference in market power that the GECF could enjoy through the LNG and reserves shares. Another important difference, discussed further below, is the fact that oil is a global market whereas gas is, at best, a regional market at the moment.

Figure 5-2: OPEC and GECF market powers, a comparison



Source: BP Statistical Review of World Energy, 2005.

Figure 5-3: OPEC and GECF R/P ratios, a comparison



Source: BP Statistical Review of World Energy, 2005.

5.1.5. Oil and Gas Economics, Fundamental Difference

The sections above have shown that there are many similarities in terms of aims and structure between OPEC and the GECF. But there are more important differences in underlying issues: oil and gas are fundamentally different commodities.

Apart from differences in terms of reserves distributions, market dependence on imports and market shares (Figure 4-3, Figure 4-4 ,Figure 5-2 , Figure 5-3 and Figure 4-1), there are other more fundamental differences in the economics of these two commodities that affect the potential for coordinated export policies.

1. There is no liquidity in the global market for gas: In 2003, for instance, more than 91 per cent[32] of LNG was sold through long-term contracts (usually 20-25 years with Take-or-Pay provisions and prices indexed to oil. This is due to the high capital intensity of gas exploration and production as well as

[32] J. Jensen 'The Development of a Global LNG Market: Is it Likely? If so When?', Oxford Institute for Energy Studies, 2004.

liquefaction and regasification and the infrastructurally constrained internal distribution mechanisms). Market signals suggest that this structure is changing, but it is unlikely to reach the level of liquidity that oil markets enjoy for a long time.

2. There is no global market for LNG: the cost to transport gas by tanker is around eight times that of transporting the same calorific value for oil[33]. Expensive liquefaction and regasification procedures and competition with pipeline gas, coupled with high transportation costs make the gas market a regionally detached one (an Atlantic and Asia-Pacific market) with little cross-trade.

3. There is no transparent global price for gas. There are two important paper markets (Henry Hub in NYMEX with delivery in the US and the gas contracts at the IPE with delivery in the UK). Dependence on LNG in the US and the UK, where these markets are located, is relatively low and prices are not yet responsive to political and economic signals from LNG producers. The situation is fundamentally different in oil where prices of both WTI and Brent (traded in the same markets, NYMEX and IPE, respectively) are very highly responsive to market signals from producers, amongst other factors.

4. Oil and gas have comparable production functions but, on the demand side, oil products are used mainly for transportation where there are no medium-term large-scale substitutes, whereas gas is used for other sectors where there are such substitutes: coal is abundant in many markets, the debate on nuclear energy at the political level is growing in importance and renewable research and development is enjoying growing investment and government backing in many consuming markets.

[33] US LNG Market and Uses, EIA, 2003.

5. An important difference is in tradition. Natural gas trade relationships were for years cultivated through trust building and dialogue, with long-term contracts prevailing (up to 40 years). The magnitude of investments and trade flow values of gas require this level of buyer-seller relationship.

6. The present incentive to 'regulate' gas production is weak. Gas export is a capital-intensive industry. It is economically difficult to build capacity and not use it. Further, in comparison to oil, gas is still in its infancy and its prices are largely linked to oil prices, which are, and which are expected to remain, high.

5.1.6. In Terms of Challenges Facing Exporting Countries and Companies

The economic context is different from when OPEC was being set up. Oil and gas sectors are already nationalised in producing countries and, in some cases, are being liberalised. The market structure for oil in the 1960s, dominated by the so-called 'Seven Sisters', which partly motivated the creation of OPEC, is no longer relevant in the gas industry.

In the context of gas, the issues under consideration are different. They are mostly institutional, in relation to market liberalisation and competition rules in the EU. They are also related to the profound changes that gas trade is expected to experience in the next decade.

The general political context is also different. Politically, collegially using natural gas as a 'political weapon' is definitely not an issue that is considered. With regard to economic issues, for example, many GECF members are either members of the WTO or aim to become members. Also, many NOCs are becoming international and are increasingly subject to competition law (e.g. in the EU or in the US). A move towards an OPEC style cartelisation is not necessarily in the political interest of GECF members. Part of the debate within importing countries regarding security of supply embodies a systematic assumption that gas exporters have cartel motivations, which is not objectively justifiable.

5.1.7. A Relationship between OPEC and GECF?

Venezuela (which is not yet a gas exporter, and not likely to become one within the next five years) and Iran (a net importer) are very active members of the GECF and, together with Nigeria, their representatives on the Executive Bureau also represent their countries on the OPEC Board of Governors. Four other GECF members are also OPEC members. In addition, OPEC already has influence on the natural gas industry in two ways:

- Since gas prices are indexed to oil in many contracts (especially in the EU and in the Asia-Pacific) and since OPEC has some control over oil prices, it indirectly exercises some control over gas prices.

- Since OPEC also has some control over the production levels of its member states, and since associated gas is a product of oil production, OPEC also exercises, indirectly, some power over associated gas production.

To that extent, the inter-related oil and gas markets and the links between the two organisations can lead to some synergies, for example the OPEC secretariat could become an observer in the GECF, the GECF chairman – if not already an OPEC member – could become an observer in OPEC; GECF could use OPEC Secretariat research capabilities.

5.2. Drivers of Stronger Cooperation

5.2.1. Common Challenges: The Case of the EU Market Liberalisation and Competition Rules

One of the most important challenges – but at the same time opportunities – that gas exporters to Europe have yet faced are the changes that resulted from EU market liberalisation following the first and second Gas Directives, and competition rules.[34].

In the past, contracts were between national gas companies and monopoly utilities, with strong involvement by governments. This status quo is moving to a more competitive state of affairs. For example, there is increasing investment in vertical integration: both further up the chain (e.g. BG in Egypt) and further down the chain (Sonatrach in the UK, US and Qatar Petroleum in Italy, Belgium and UK). There are also investments in geographical diversification (e.g. BG in Italy). This is expected to create portfolio effects which will put further pressure on the liquidity of the market.

Indeed, in the Algiers meeting in 2002, a working group including Russia, Algeria and Qatar was set up to discuss gas supply issues with the EU. This working group called on other countries to join and find a way to tackle the challenges and opportunities resulting from gas liberalisation.

In the fifth meeting in Port of Spain, a published document by the Trinidad Ministry described the GECF as 'a means to address ongoing legislative changes, including the liberalization of markets in Europe and to study the global growth patterns of natural gas demand'. In the same meeting, the Qatari Minister of Energy stated: 'whilst the breaking up of the monopolies in certain markets was a positive development and benefited the consumers by opening up markets and encouraging competition, it has however made things more complicated for producers who are caught in the regulatory maze that

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[34] H. Nyssens, C. Cultrera and D. Schnichels, EU DGCOMP, 'The Territorial Restrictions Case in the Gas Sector : A State of Play' *Competition Policy Newsletter*, Spring 2004 ; H. Nyssens & I. Osborne, EU DGCOMP, 'Profit Splitting Mechanisms in a Liberal Gas Market : The Devil Lies in the Detail' *Competition Policy Newsletter',* Spring, (2005).

followed the market liberalization'. The Minister further said "exporters can no longer rely on the comfort of AAA rated customers"[35].

On a separate occasion, the Algerian Oil Minister, Chakib Khelil, stated:

> 'a series of gas directives have instated an open energy market in Europe. But they have fallen far short of allowing energy to flow unrestricted. Numerous restrictions explain this. Certain markets for instance, are extremely difficult to access. There are glass walls hindering attempts by producing countries to market directly to consumers. And a non-indicative planification of networks has been reintroduced.'[36]

The other issue that set suppliers against the EU Commission is the destination clause. The destination clause is a customary feature in many gas contracts, whether pipeline or LNG, stipulating that the buyer of the gas commits to receiving the gas in one, or more, pre-specified locations and undertakes not to resell it. This is because prices to consumers are calculated on a net-back basis so that they are competitive at the point of delivery.

Territorial restrictions, such as the destination clause were deemed illegal under DGCOMP (The Directorate of Competition in the EU Commission) competition rules in the early 2000s. The important and controversial aspect of these rules was their retroactive nature. DGCOMP insisted that existing contracts containing such destination clauses, and negotiated before the current competition rules were established, should be amended.

In contracts where the destination clause was deemed illegal, arbitrage opportunities emerged with the US market (cargoes initially earmarked for one of the EU LNG importers were redirected towards the US East Coast) providing arbitrage profits for the buyer.

[35] Speech by the Qatari Minister of Energy to the GECF Ministerial Conference, Port of Spain, 26 April, 2005, unpublished.
[36] Reported in 'Gas Exporters Feud', *World Gas Intelligence*, vol XVI, no 18, 4 May, 2005.

At the third GECF meeting in Doha, the Qatari Emir (head of state), referring to this in his keynote address, warned against the negative impacts of 'new governmental and regional procedures in consumer countries that interfere with the business terms and conditions of the contracts on gas purchases, regasification and distribution' as they 'threaten the legitimacy of long-term contracts and weaken classification of the borrowing capability of the buyers'.

The problems raised by destination clauses were not so much the implementation of competition rules as their retroactive nature, affecting existing contracts that, producers argue, was done without prior consultation with them. This was perceived to run contrary to the generally accepted principle that gas trade is based on mutual trust and dialogue.

The Commission carried out 'investigations'[37] on the effect of the destination clause on Nigerian LNG contracts with Spain, Portugal, Italy and France; Gazprom (Russian) contracts with ENI (Italian) and Sonatrach (Algerian) contracts with its main European buyers, some of them incorporating a profit-sharing mechanism. All these cases involve suppliers who are members of the GECF. However, settlements were reached on a case-by-case basis (suppliers did not negotiate as a group).

The destination clause is not the only competition-related issue that has affected or could affect gas suppliers. Profit-sharing agreements are also in some cases considered illegal under competition rules as they are said to, sometimes, restrict competition[38]. Joint bidding for regasification capacity, joint sales, joint purchases and more importantly long-term contracts and price indexation are also potentially anti competitive. The Commission, however, has granted 'Article 22' exemptions[39] (under the 2003 Gas Directive) to most new terminals, allowing for some protection to sellers against Third Party Access.

[37] H. Nyssens, C. Cultrera and D. Schnichels, EU DGCOMP, 'The Territorial Restrictions Case in the Gas Sector : A State of Play' *Competition Policy Newsletter*, Spring 2004.
[38] H. Nyssens & I. Osborne, EU DGCOMP, 'Profit Splitting Mechanisms in a Liberal Gas Market : The Devil Lies in the Detail' *Competition Policy Newsletter',* Spring, (2005).
[39] Section 22 exemptions from Third Party Access are granted under the EU Second Gas Directive (2003) for new regasification terminal investments if there is evidence that such exemption is necessary for the investment to be credit-worthy.

Many of the challenges facing GECF members are related to this market liberalization and competition rules, among them:

- transparency and access to markets (regasification terminal and further downstream);
- the destination clause issue and, subsequently, competition issues arising from profit-sharing mechanisms, joint bidding, long-term contracts, price indexation in the Atlantic market;
- the new credit-worthiness of partners/new entrants in long-term contracts, as the counter-party risk of the buying utility is higher since the government is, in theory, no longer a systematic 'guarantor' for state-owned utilities.

5.2.2. More Cooperation in the Atlantic?

Not all GECF members sell to the EU. This has perhaps generated less interest for producers in the Asia-Pacific market to the GECF, given that on of the major causes of the creation of the GECF was to discuss EU regulations. This being said, importers in the Asia-Pacific market rely more on LNG, and more on imports and the number of exporters to the Asia-Pacific market is smaller. However, Asia-Pacific gas exporters rely less, relatively, on oil and gas exports; there is more active importer involvement in the projects (Table 3-1) and less liquefaction capacity share (Figure 4-2) in the Asia-Pacific. Gas exporters to the Asia-Pacific are therefore less politically and commercially motivated to develop coordinated export policies, on the one hand, and to be active participants of the GECF, on the other hand. In effect, the LNG trading environment in the Asia-Pacific is more dialogue focused than competition focussed.

5.2.3. Other Potential for Cooperation

There is significant political will for energy cooperation between some Atlantic LNG exporters, at the highest political levels. Apart from the challenges arising from the institutional and contractual challenges posed by the EU, there are commercial opportunities for the GECF members, including in relation to arbitrage between European and US buyers. The GECF is a unique platform for the identification of these opportunities.

There is, for instance, potential for swaps between different Atlantic players (e.g. involving Trinidad/Algeria – Spain contracts). This was one of the issues discussed, for instance, when the Algerian minister travelled to Trinidad and Tobago in December 2004. It was also an issue discussed by the Algerian and Trinidad delegations on the fringes of the GECF Ministerial Conference in April 2005. Chakib Khelil, the Algerian Minister of Energy and Mines said:

> 'We don't have to create another OPEC for gas, but I think we need to allow companies and gas producing countries to share information to optimize our infrastructure and to allow us to do swaps . . . for example, we want to do swaps with Trinidad and Tobago and Spain and we need to share information to do that. This brings openness to the process.'[40]

Also, should US sanctions remain against Iran once that country becomes an LNG exporter, opportunities for 'legal swaps' will also emerge whereby Iran can supply quantities of other GECF members which have contracts with an EU importer to free up capacities for these producing countries to sell gas to the US, with a mechanism for profit sharing.

Depending on the progress of the upstream legal framework in GECF members, opportunities for reserves swaps will also emerge, allowing national oil/gas companies in both the Atlantic and Asia-Pacific markets to supply both these markets.

There is also potential for exchange of technical and commercial experiences in LNG, CNG and GTL among the GECF member states. Iran and Venezuela, particularly, can use other members' experiences in LNG. One of the other opportunities concerns the economies of scale in consulting procurement. The supply-demand model, financed by the member states of the GECF, and led by Algeria, will be a prime example.

[40] 'Gas Exporters Feud', *World Gas Intelligence*, vol XVI, no 18, 4 May 2005.

The GECF is also an important tool for identifying opportunities for potential vertical expansion (booking of capacity in regasification terminals in consuming markets) and horizontal expansion (exploration and production in other markets).

The changing market structure, referred to as a ‘common challenge’ by many GECF members, also offers potential for ‘standards sharing’ in long-term contracts terms (preferred length of contracts, preferred ToP level and, more importantly, a move away from netback pricing in LNG and its competitiveness with pipeline gas).

More particularly, in the light of the abolition of destination clauses in Europe, and accordingly of netback pricing, and as a number of long-term contracts with Europe expire within the next 10 years (Table 5-1), and will potentially be renewed; prices will become an important topic for discussion among GECF members that supply the EU.

Table 5-1 Examples of contracts expiring within the next 10 years

Exporter	Exporting Country	Importer	Importing Country	Volume (mtpa)	Start	End
Sonatrach	Algeria	Distrigaz	Belgium	3.33	1982	2006
Sonatrach	Algeria	GDF	France	0.39	1965	2013
Sonatrach	Algeria	GDF	France	3.81	1982	2013
Sonatrach	Algeria	GDF	France	2.59	1976	2013
Sonatrach	Algeria	GDF	France	0.79	1992	2013
Sonatrach	Algeria	Snam	Italy	1.33	1997	2013
Sonatrach	Algeria	Depa	Greece	0.4	1999	2013
Sonatrach	Algeria	Cepsa	Spain		2001	2015
Brega Pet. Mkt.	Libya	Gas Natural	Spain	1.1	1971	2008
Adgas	Abu Dhabi	BP	Spain	0.75	2002	2005
Oman LNG	Oman	Shell	Spain	0.7	2002	2006
Oman LNG	Oman	Union Fenosa	Spain	0.73	2004	2005
Oman LNG	Oman	BP	Spain	0.67	2004	2010
Qatargas	Qatar	Gas Natural	Spain	0.7	2001	2013
Qatargas	Qatar	Gas Natural	Spain	0.7	2002	2013
Qatargas	Qatar	BP	Spain	0.75	2003	2006

Source: Gas Strategies Online 2005.

Another important function is that of representation. Once relationships between members are stronger, the chairman of the GECF (in the absence of a secretary general) can act as representative to the GECF and to other exporters in discussions with consumers or other stakeholders with a unified view, albeit with a limited scope given the regional nature of the gas industry.

To accommodate these opportunities and challenges facing GECF member states, the GECF, does not, for the time being, need to drastically change its structure.

5.3. Impediments of stronger cooperation

Chakib Khelil, the Algerian Minister of Energy and Mines who is one of the founders of the GECF, did not attend the fifth Ministerial Conference due to urgent domestic business. He was, however, reported by some media outlets[41] to have expressed strong frustration about 'bureaucracy' in the Forum and a lack of information sharing between GECF members.

The development of the destination clause issue could be one of the reasons for this. Algeria has tried to use the GECF as a vehicle for a common stance on the destination clause issue with the EU. As mentioned above, a working group was set up at the Algiers meeting in 2002 to this effect. However, the GECF did not play an important role over the destination clause. One of the reasons for this is that the destination clause issue with the EU only concerns a small number of members.

Another underlying issue is that of trust. Since LNG has become such a competitive market for suppliers, it seems that some member states are not willing to share information with others while some member states are not willing to contribute to some of the important projects of the GECF. Both these two issues have a negative impact on the supply-demand model. Chakib Khelil said in a recent interview:

[41] 'Gas Exporters Feud', *World Gas Intelligence*, vol XVI, no 18, 4 May 2005.

> '[the GECF] is an organisation trying to do studies, which individual countries can do, but there is no consensus for doing the studies or even financing them. There are wishes from certain countries, not member countries because there is no membership, but only a few want to do these demand studies…The objective is co-operation between member countries, to exchange information, and they have not been doing that. Up to now, Algeria has not been able to exchange information with any other countries. People consider this information confidential and they do not want to share it. The objective was not to organise like OPEC, to look at supply and demand. The objective was to exchange information and co-operate, for example, in optimising our way of doing business, which means if I have an LNG tanker that needs to go to the US, and I have another producer who can do it better, who is nearer, then we can save on transport and we can optimise our transportation. I think it is good for the market and good for member countries. The other thing is to exchange information on contracts, terms and so forth, and to optimise supply to countries. The objective was not a cartel, we always said that. It was more of an organisation to exchange information.' [42]

The trust issue is understandable given the young age of the Forum and the frequency of its meetings. The Iranian representative to the Executive Bureau told the press at the meeting about the GECF member states 'We are competitors, not yet partners'. The Trinidad Minister of Energy said in his welcome address: 'Many of the GECF countries represented today are important regional partners on not only energy, but also political and security issues. And after years of learning about, and visiting, each other's countries strong people-to-people links have been developed'.[43]

The unwillingness to participate in the projects, however, may reflect a more profound impediment, which is the potential for divergent interests between members. For

[42] *Argus Global LNG Monthly*, 'Chakib Khelil: Diversifying Supply is not Cheap', June 2005.
[43] Welcome remarks by Erik Williams at the Ministerial Conference of the GECF, 26 April 2005.

example, Asia-Pacific exporters are less keen to participate or contribute to GECF meetings; no meeting so far has been hosted by an Asia-Pacific exporter.

Erik Williams, the then Minister of Energy for Trinidad and Tobago, explained in the press conference following the fifth GECF meeting that other ministers pointed out the arbitrage trades carried out by Trinidad and Tobago's partners in the Atlantic LNG project earlier at the 2003 meeting in Doha. Trinidad is keen to use the Forum to learn from other exporters' experience on how to improve dealings with international oil companies. Erik Williams also said in his welcome remarks 'We must also learn from our past experiences and avoid being caught off-guard. Now, more than ever, we must be creative and adopt approaches that will enable us to contemplate certain initiatives in advance, time is short'[44].

Looking to the future, Trinidad is reported[45] to have initiated a procedure to renegotiate its contracts with its partners and as its most important market seems to be the US, it is not clear whether Trinidad will continue to play an active role with the GECF if and when these issues are resolved.

Niche players like UAE and Oman which could be categorized as revenue maximizers are expected to maintain an aggressive investment strategy. Qatar, which is already investing heavily in its gas infrastructure, could face Iranian competition potentially within a decade. Iran and Venezuela, which have not yet joined the LNG exporters club, are also expected to have an aggressive investment strategy in the medium-term future. Algeria, which is keen to maintain pipeline/LNG flexibility and has set ambitious export objectives for 2010, is already facing competition from Nigeria, Libya and Egypt.

As also mentioned above, Russia's position is not yet clear. With Turkmenistan only attending the first GECF meeting, there are reports that Russia is leading a so-called 'Eurasean Gas Alliance' comprising not only Turkmenistan but also Kazakhstan and

[44] Welcome remarks by Erik Williams at the Ministerial Conference of the GECF, 26 April 2005.
[45] *Argus Global LNG Monthly*, 'Trinidad Tears Up The Rule Book', February 2005.

Uzbekistan to target the Indian and Chinese pipeline markets.[46] Russia has the world's largest reserves and is working towards developing an important LNG potential while consolidating its pipeline market share.

All these strategies call for an important increase in LNG capacity and could, in the medium term, create a potential over-capacity in the LNG market. According to the author's calculations based on publicly available data[47] on planned and proposed liquefaction terminals, the world's liquefaction capacity would, if all proposed projects go ahead, increase almost threefold by 2015. So far, it is not clear whether consultations under the auspices of the GECF have had an effect on 'regulating' investment in LNG capacity. Nevertheless, the uncertainty surrounding concerns of long-term over-supply in a more flexible LNG market explains the importance of the supply-demand model.

This highlights probably one of the most important impediments for wider GECF dialogue: the sellers' market experienced at the time of writing. Indeed, when the GECF first started in 2001, the market was in a situation of over-supply and low prices (both oil prices and Henry Hub prices). The buyers' market has motivated exporters to set up and work towards producer-to-producer dialogue. At the time of writing, prices are high and supply is tight. The motivation for producer-to-producer dialogue is smaller. It is also a time of high security of supply concerns on the part of the buyers, particularly after the Russia-Ukraine gas dispute.

The Forum has also benefited from the personal sponsorship of a number of ministers, some of whom are no longer in office (e.g. Bijan Zanganeh in Iran and Erik Williams in Trinidad and Tobago). An important issue for the future of the forum is whether their successors will provide the same level of interest.

[46] Alexander's Oil and Gas Connections: http://www.gasandoil.com/
[47] Data compiled by Gas Strategies Online.

At the time of writing, it seems that the sixth Ministerial Meeting, due to be held in Caracas, under the Venezuelan presidency, will not convene. The reasons for this are not yet clear. It is not clear either whether the Ministerial Conference will meet somewhere else, say Qatar, or whether it will convene at all.

6. CONCLUSIONS

Structurally, the GECF has progressed slowly but surely over the past five years. Members of the Forum are keen not to portray the GECF as a cartel or as a 'Gas OPEC', though it is true that some parallels between the GECF and OPEC can be observed. In fact, the GECF is far from a 'Gas OPEC' in many respects. It is a forum of exchange of ideas rather than a decision-making body. Membership is loosely defined and there are as yet no statutes to sign or membership fees to pay. A 'Gas OPEC' is not conceivable strategically, economically or politically, and it is not in the interests nor aspirations of most gas exporters. Oil and gas are fundamentally different commodities in terms of market structure, pricing and substitution possibilities. The systematic assumptions made in some consuming countries, or the media, that the GECF will automatically become a 'Gas OPEC' are not well founded. This being said, it would not be impossible for the Forum to be more proactive in regulating long-term over-supply, especially should current market conditions change, particularly if/when the market moves from being supply led to being demand led.

The GECF membership has not been stable, with its centre of gravity slowly moving from pipeline gas to LNG. In fact, at the moment, all GECF members are LNG exporters, would-be exporters or hopefuls. Not all gas exporters are members of the GECF, and conversely not all GECF members are currently gas exporters. The behaviour of key members, and their national tradition of being part of these types of organisation, can have an important impact on the GECF in the future. For example, in view of Russia's importance in the European gas market, its involvement with the Forum will have a noteworthy effect in relation to European trade.

So far, the GECF has aimed to act as a forum for the exchange of ideas, experiences and research about subjects of mutual interest to gas exporters. It has recently moved towards working on more ambitious projects like the important supply-demand model which requires planning and, more importantly, funding and data. The way the model will be handled (financial contributors, contributors in terms of data, end-users etc.) will constitute an important test of cooperation between GECF members.

While the levels of integration and coordinated export policies are currently low, the membership of the GECF has created a strong current position and expected market share in both the Atlantic and the Asia-Pacific LNG markets, in respect of both liquefaction capacity and gas reserves. This market share is most important within the EU, which coincides with the fact that many GECF members voiced concerns about EU gas market liberalisation and competition rules, specifically access to markets and the enforced abolition of destination clauses.

Looking back at the way the issue of the destination clause was handled, which has prompted criticism of the EU competition authorities by many market observers and even EU member states, and taking into consideration the market power of the GECF in the EU market, in respect of both pipeline and LNG, as well as the EU's dependence on imported gas, it is important for the EU Commission, in the future, to have a more dialogue-oriented interaction with its suppliers, similar to the EU – OPEC dialogue, thereby retaining its attractiveness as a buyer.

The Forum is important to its members. It offers ways to identify potential synergies in vertical integration, partnerships and swaps. It also allows a unified view on some issues and to economies of scale on projects that can be too expensive for one country alone – the model, for example. However, integration between members is impeded by lack of trust due to the relatively recent creation of the Forum; this is also impeded by divergent interests.

For example, Asia-Pacific members are not as active as their Atlantic counterparts since they do not face the same challenges over the emergence of the US LNG market and the changing structure of the EU market. The Asia-Pacific market, which is virtually exclusively an LNG market, is in addition better organised with stronger relations between partners.

In order to fulfil its objectives, the Forum does not need to drastically change its structure, but it may need to strengthen it. For example, when the supply-demand model is ready, it is conceivable that there will be a mechanism allowing only those countries who have contributed data and funds to use the model. This model, if successfully implemented, could provide the means by which the forum could 'regulate' over-capacity although this will not be achieved through quotas, but through a less formal common understanding of the cycles in the LNG market.

With destination clauses in EU gas contracts no longer legally binding, netback pricing is less relevant for LNG and the quest for new pricing systems for LNG will become an issue of importance, especially in those contracts up for renewal in the next five years. This will also constitute an important test for the Forum.

A hypothetical stronger structure to the Forum, including the setting up of a secretariat, will cause the membership base – and correspondingly market shares – to consolidate to an inner circle of committed members and an outer circle of members only interested in discussions. There is undoubtedly a trade-off between the level of integration and the market share. Further, in view of the set-up of the liaison bureau, it is important for the GECF to launch a website discussing its aims, objectives and ambitions. This will bring more transparency and will, in the long run, favour dialogue with trade partners.

GECF members have consistently discussed inviting gas consumers, at the level of governments. It is plausible, therefore, for this to happen at future meetings.

The relationship between OPEC and the GECF will be interesting to observe. Such relationship already exists economically via OPEC's influence on gas prices through its influence on oil prices and practically as seven OPEC members are also GECF members. It is not inconceivable that the OPEC Secretariat be invited as an observer to GECF and vice versa for the GECF chairman.

The Forum was set up at the time of a buyers' market, when there was a genuine need for a forum of producers. The rather different market conditions at the time of writing, are exceptionally beneficial to producers and the Forum's *raison d'être* is fundamentally not at the forefront. With the apparent cancellation of the Caracas meeting, and the lack of communication surrounding it, it is not actually clear whether the Forum will continue to meet.

If it does, over the next ten years, the GECF will have to balance the diverging interests of members, progressively build trust, and facilitate bilateral and multilateral opportunities for partnerships and swaps between its members. It also has to engage, as a single entity, in more active dialogue with consumers. It will have to successfully manage the creation of the supply-demand model and future discussions as to whether common approaches to pricing are possible. The challenge will be to do so at a time when the market is supply led, prices are high and there is less incentive for suppliers to rally around the Forum.

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