

THE MATRIX MODEL

INTRODUCTION

A key objective of the project was to construct a set of inductive scenarios that provide us with a number of key milestones into the future. In doing so it is necessary to undertake a simulation of how the future might develop. This can be undertaken in a variety of ways, but one of the key methods of simulating the path into the future is to use a gaming structure to create the possible future paths. The game mechanism outlines the parameters within which the simulation will run and describes the ways in which the players (who represent the main actors in the simulation) interact with each other.

The basic model on which the game is based takes the view that technological development drives economic growth, and that economic might underpins political and diplomatic power. A growing economy will enhance the ability of a player to develop and maintain their geopolitical strength. They need to do this in order to achieve their national game objectives, which are determined in accordance with their national briefings.

Of course, each player is not operating in isolation. They will attempt to achieve their objectives whilst other players may be attempting to obstruct those objectives. This reflects the view that we live in a world where resources are limited and where national interests often can be mutually exclusive. This mutual exclusivity can often lead to conflict and competition in the international arena. In a game such as this, there are no clear “winners” and “losers”. Some nations will do well in relation to their national objectives, whilst others do less well. The challenge to the players, as a group, is the degree to which as many of them can achieve the greater portion of the national objectives.

THE GAME STRUCTURE

The focus of the game is the grand strategic level. The game is an umpire determined geopolitical game where the key action mechanism is the argument framework. Each argument contains three elements:

1. The outcome. This is the desired culmination of the trend upon which the argument is focussed. For example, the outcome might be that a nation is granted specific access to the mineral rights of another actor or to a non-actor nation. Alternatively, the outcome might be to mitigate an adverse outcome of a previous round. Within this game, each outcome argued

will come to pass, but with varying degrees of success. A poorly supported outcome may come to pass, but in an entirely harmful way.

2. Three supporting factors. These are three reasons, from within the context of the game, why the outcome should come to pass. Three very good reasons will give rise to a very favourable outcome. Three poor reasons will give rise to an outcome that is only moderately beneficial. Less than three reasons will give rise to an outcome that does more harm than good.

3. Harmful effects. These are identified by the umpires and are incorporated into the game by the players. They may be minimised by three strong supporting factors. Weak supporting factors will heighten the impact of the harmful effects.

The resolution of the outcomes and the determination of the harmful effects are undertaken by the umpires. As each turn is set to cover a four year period, players are encouraged to think in terms of a succession of medium term trends. However, care must be taken, as the enhancement of economic resources can, on occasion, act contrary to the long term national interests of a nation. It is up to the players to resolve these dilemmas.

The aim of the game was to determine a path by which the players might achieve their national objectives. Once again, the players might wish to think in terms of a succession of medium term trends that lead to the achievement of those national objectives. In this game there is far more chance of the national objectives of one actor impacting at variance to the national objectives of other actors. The game is designed to produce situations of conflict. A key point of interest in the game is to see where these points of conflict might arise and to examine the methods by which the actors resolve these conflicts.

At the end of each game, the final outcome of the game is the inductive scenario that we have generated. We would then collect the scenarios generated from a number of iterations of the game to look for common themes and points of conflict. These will then provide us with a number of key milestones into the future.

THE FRAMEWORK OF THE GAME

In the construction of the framework of the game, we have adopted the Westphalian Model of international relations. It is entirely possible that this model may be breaking down at this moment in time, and there is good evidence to say that it may be. However, the model has been in operation for the past 350 years, we feel that the evidence is not sufficient to suggest the complete breakdown of the system in the next 20 years. Indeed, if the system were to

break down, then, in the absence of a viable alternative, we are likely to face the possibility of the return to the Dark Ages on a grand scale. This is an interesting possibility, but the limited resources that we can devote to the project are such that we do not have the capacity to model this Wild Card scenario, interesting though it might be.

If we accept the Westphalian Model as a starting point, it follows that there will be a hierarchy of activity in international relations. In his book *“The Clash of Civilisations”*¹, Samuel Huntington highlights a hierarchy of powers (of the first order, the second order, the third order, and so on). At the highest level of operation will be the Great Powers. These will have the capacity to operate on a global scale, and at the grand strategic level. Our opening premise is that it is only the USA who has this capacity in 2005.

At a lower level of operation are those Great Powers who can operate at a global level in one or more of the fields of endeavour that international power is exercised. For example, we may argue that Japan is a global economic power, but that it lacks sufficient military power to allow it to operate fully at the grand strategic level. The second premise of the project is that, by 2025, the USA is unlikely to be the only Great Power that can operate globally at the grand strategic level. In the context of the game, we are concerned with those Great Powers that are of the first order on a global grand strategic scale, or who could become so by 2025. These are the actors.

Below the level of the Great Powers is an array of supplicant powers of varying degrees. Powers of a lesser order, by definition, are supplicants to powers of a higher order. They look towards the powers of a higher order for leadership, encouragement, and, generally speaking, material aid in the operation of their foreign policy. For example, in Europe, the relationship between the USA and Israel is seen as a relationship of supplication. It is viewed that Israel looks to the USA for leadership on issues in the Middle East, that it is sensitive to the encouragement or discouragement of the USA in its stance on foreign policy, and that it relies on the USA for economic aid and military aid, particularly in the fields of military intelligence and training. Of course, the European view may be wrong, but the point we are making is that of the supplicant to the Great Power.

In the context of the game, the actor (in our example the USA) would adjust its policy towards the supplicant (in our example Israel) in order to achieve its objectives. In this case, Israel has become the means by which the actor (the USA) can achieve its ends. Within the game, the nations who are supplicants to the Great Powers have a role as the means. Of course, it is

¹ ‘The Clash of Civilisations and the Remaking of World Order’ by Samuel P Huntington (Free Press 1996)

entirely possible for a given nation to be wooed as a supplicant of more than one Great Power. For example, Pakistan could be wooed by the USA as a means to secure Middle Eastern energy supplies by actively supporting the “War on Terror”. Equally, Pakistan could be wooed by China as a means to counterbalance a perceived military threat to China from India. In this case, Pakistan can act as a supplicant to both the USA and China simultaneously helping both to achieve ends that are not mutually exclusive.

Matters become more complicated when the ends are mutually exclusive. For example, in the case of Ukraine, there is a desire on the part of Russia to embrace Ukraine as part of the greater Russian sphere of influence. In this case, Ukraine becomes the means by which Russia can exert its influence. Equally, there is a desire on the part of the EU – or, at least, a significant body of opinion within it - for Ukraine to join the EU as a means to secure the Eastern borders of the EU. Ukraine as a part of the EU is mutually exclusive with Ukraine as part of the Russian greater sphere of influence. In this case, there is division within the supplicant as it becomes the object of rivalry between two of the Great Powers. It is the role of the game to resolve this dispute within the framework of the game.

So far, we have discussed the Great Powers (the actors) and their supplicants (who supply the means by which the actors achieve their ends) in terms of a traditional nation-state structure. One of the areas in which the Westphalian Model has broken down in recent years has been the rise of non-state entities on the world stage. The non-state entities tend to be of two forms – the supra-national entities to which nation states belong (e.g. the WTO, the UN, ASEAN, and so on). With the exception of the EU, it is our view that, within the horizon to 2025, it is highly unlikely that any one supra-national entity will develop sufficiently to achieve Great Power status and become an actor in the game. Of course, we could be wrong in our view, but to model this possibility would be more in the nature of a Wild Card scenario, with which we do not have the resources to be concerned.

The second form of non-state entity is quite literally the non-national entities. This is quite a nebulous concept that is difficult to define. However, we would be much the worse off if we did not include it. For example, it includes cultural entities such as “Islam”. To the extent that Islam is a force on the world stage, it needs to be included in the game, even if we cannot quite pin down a definition of that force within the Westphalian Model. Recent world events have led us to focus on Islam as a key non-national entity. However, we do need to maintain a perspective and recognise that it is not the only one. For example, twenty years ago, we would have included the “Military Industrial Complex” as a key non-national entity. This reminds us of an important point. As the actors are nations in the Westphalian Model, it is entirely possible for key non-national entities to operate within the heart of the actors. Many

Europeans might argue that the neo-conservatives – a key non-national entity in the USA – have had a dominant influence upon recent US foreign policy. In this context, neo-conservatism becomes key non-national entity.

Within the context of the game, the non-state entities are instruments – the means - through which the Greater Powers can achieve their ends. In the case of supra-national entities, it would be the hope of the Greater Powers that they could influence directly the body involved to act in a way that is coincidental with the achievement of their ends. In the case of non-national entities, it is more customary to use a hierarchy of supplicants to influence the non-national entities. For example, one of the ways in which the USA hopes to defuse Islamic militancy worldwide is by encouraging Turkey to join the EU, and by encouraging the EU to accept Turkey as a member state. If this were to be achieved, then the US interests in the Middle East would be made that little bit more secure as key infrastructure assets, such as oil pipelines, run through Turkish territory.

To recap our position, in the context of the game, the actors within the game are the Great Powers who have, or who may come to have by 2025, the capacity to act on a global grand strategic scale. Using the Westphalian Model, these actors are nation states, who use a number of supplicant Lesser Powers and non-state entities as the means to further their ends. We now need to identify the main actors.

INTRODUCING THE ACTORS

In identifying the actors, there were some that readily came to mind and others who came less readily to mind. For each actor, there is a case for their inclusion and there is a case against their inclusion. These cases may be weak or strong, and it was our task to weigh the arguments for inclusion and exclusion before coming to a final decision. The final decision was based upon an assessment of the proposition that, by 2025, the nation in question had the potential to be able to act on a global grand strategic scale.

Perhaps the easiest case to make was for the USA. Without doubt, the USA has the capacity to project itself at a global grand strategic level at present. US forces are stationed on every continent, US companies operate in every continent, and the USA is a nation with whom friendship is seen to be of value. The concept of the USA, through the “American Dream”, is an aspiration that many have throughout the world. The case against the USA is particularly weak. The possibility of the “50:50 Nation”, whilst real, is of negligible significance if our horizon is set at 2025. The possibility of civil strife in the USA along racial lines is, again, possible but unlikely to a significant degree. Finally, the vulnerability of the US economy,

whilst real enough, is unlikely to be exploited in diplomatic terms, as, in an interdependent world, all of the Great Powers would suffer if the vulnerability of the US economy were to be exposed too greatly.

The case for the EU is quite different. Europe is currently within a key formative phase. Two long term forces have recently reached the upper reaches of the diplomatic agenda. The first is the question of EU enlargement. The EU has recently enlarged its membership to include a number of East European nations. A further enlargement is planned in the years to 2025 that would take the EU, for the first time, away from the geographical entity of 'Europe'. Already, the EU is the largest trading area in the world. However, touching upon the second force, we might question the degree of cohesiveness of the EU as a diplomatic unit. At present, the EU consists of a number of independently minded member states. A key uncertainty for the EU in the years to 2025 is the extent to which it can become a cohesive diplomatic unit. We felt that there is a good case for the inclusion of the EU as an actor - even though it is not literally a nation-state – and that the case against inclusion of the EU would be too risky an undertaking for us to accept.

The case for Japan proved to be not as controversial as we thought that it might be. There is a strong case that Japan is one of the great economic powers in the world today. Of course, the Japanese economy has its weaknesses, but it seems to have lived with them for a very long time. At present, Japan has little political influence at a global grand strategic scale and has even less military influence. However, this is changing. Japanese troops were deployed in Iraq and Japan has the technological capability to develop a full military presence – even to develop nuclear weapons, along with their delivery vehicles, at very short notice. Furthermore, Japan may wish to rely less upon the US security guarantee than it has in the past, particularly in relation to the Korean peninsula and in its relations with China. We rather see Japan as a strong economic power and a rising military power, both of which argue for the inclusion of Japan as an actor in the game.

With the inclusion of the USA, the EU and Japan, our attention next turned to the question of Russia. Taking a long view, Russia (or the USSR during the Soviet interlude) has been a Great Power of the first or second order for over 200 years. Russia is currently in a situation of retreat from pre-eminence, but that does not mean that we can wholly discount Russia as a Great Power. Russia still has extensive oil and gas resources, which are of great significance in an energy hungry world; it still has an extensive nuclear arsenal, which still makes it a formidable military force. It still is a permanent member of the UN Security Council, which still makes it a political force to be reckoned with. The case against Russia is mainly a manifestation of the roll-back of Russia after the fall of the Soviets. We are minded that the

roll-back has reached its low water mark and that the world will have to deal with a resurgent Russia in the next twenty years. This argues for the inclusion of Russia as an actor.

At this point, we wanted to take on board some of the newly emerging Great Powers. Two immediate candidates were China and India. China has a long Imperial history, but has never quite been a Great Power in the sense that is meant in the Westphalian Model. The Chinese military presence is, on paper, the largest in the world. China has a permanent seat on the UN Security Council, which gives it a greater degree of political influence. However, in the past, China has been unable to break through as a Great Power because of the inability of the Chinese economy to act with sufficient might to influence the world economy. This is now changing. China has recently undertaken rapid industrialisation and has started to achieve significant rates of economic growth. The possibility of a China emerging by 2025 that is a military power - and that has the political influence and economic wealth to underwrite that military power - argued for China to be included as an actor.

The case of India is similar to China, but not quite the same. India is seen as the largest democracy in the world, a claim that gives it a great degree of political legitimacy. The Indian military forces are relatively large, but have tended to be restricted in use to within the Indian Sub-Continent. In these respects, it is not clear that India ought to be included as a Great Power. However, like China, India has recently experienced a period of rapid economic growth – mainly in the service sector and the new economy. It is likely that, within the time frame that we are considering, Indian will become the largest liberal democracy with a market based economy in the world. This is a powerful argument for the inclusion of India as a Great Power. On balance, we decided to include India as an actor because we felt that to exclude India would be too much of a risk of missing something quite important.

We decided to limit ourselves to six actors. In previous games, we have found that a game with more than six actors tends to become very unwieldy. We recognise that we have excluded as actors a number of interesting Lesser Powers such as Brazil, South Korea, Indonesia, and Iran. However, the focus of the game is to look at the position of the USA in the world by 2025 and to undertake the review at the grand strategic level. In doing so, we have to accept that we are unlikely to capture the smallest detail of the interactions.

The final task was to identify the ends of the actors. It is fair to say that none of the actors is a monolithic structure. Within all political entities there are countervailing forces acting for or against any particular end. We wanted the game to capture this sense of countervailing force. In doing so, each actor will have at least two different and mutually exclusive ends and we will run a series of iterations of the game under the assumptions of those ends. For example, one

issue with which we wish to deal is the idea of America as an Empire. We shall play a set of iterations where the US player has a set of Imperial ends, and another set of iterations where the US player does not have a set of Imperial ends, and compare the two sets of results to look for common and contrasting patterns to these outcomes.

In order to capture these countervailing forces, we needed to produce a set of briefings for each actor. These briefings would contain a review of the recent past, along with an assessment of the current situation of the actor. They would then go on to outline the ends which they believe the actor ought to pursue in the years to 2025. This is the subject of a subsequent piece.

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