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GAME THEORY ANALYSIS OF VARIOUS SCENARIOS IN HONG KONG POST-2047

INTRODUCTION

Hong Kong was handed over by Great Britain to China in the year 1997 with a rider that Hong Kong would retain its freedom of expression and relative autonomy till 2047. The rider in question is the Sino-British Joint Declaration which empowers the Special Region of Hong Kong to retain its capitalist way of life and freedoms of speech and expression only till the year 2047. This arrangement is often referred to as the 'one country, two systems' model. Hundreds of thousands of people in Hong Kong protesting Chinese hegemony is a sight that the world has got accustomed to. The year 2003 saw widespread agitation against national security reforms perpetuated by China. The year 2012 witnessed large scale protests organised by students and teachers against amendments in the curriculum which were allegedly propagating Chinese history and traditions. In 2014, a revolution for universal suffrage seized control of Hong Kong. The year 2016 saw an unprecedented first as the first pro-independence protests shook the region. This was followed by a more intense clamp down by the Hong Kong government on pro-independence campaigns and the people behind them. The pro-independence campaign reached a flashpoint in 2019 as millions of people camped out in the streets of Hong Kong to protest a Pro-China extradition bill. There looms great uncertainty over the future of Hong Kong after the year 2047. To try and understand a few possible scenarios, a very basic application of Game Theory can be employed.

GAME THEORY ANALYSIS OF POST-2047 SCENARIOS FOR HONG KONG

ASSERTIONS AND PREMISE (YEAR - 2047)

ECONOMIC PROWESS - In terms of Gross Domestic Product at Power Purchasing Parity

- Projected for the Year 2050 (at constant 2016-dollar rates).

- Sourced from PricewaterhouseCoopers Report titled *The World in 2050*¹.

PLAYER 1 – Hong Kong

- The most variable factor in most scenario hypothesis.
- Variable conditions to be mentioned for this player in every scenario.
- The only constant is the people's demand for autonomy.

PLAYER 2 – People's Republic of China

- Centralised Communist form of Government Structure to be retained.
- World's Largest Economy in terms of GDP at PPP – 58499 \$bn.
- Focussed at maintaining the edge over the United States of America.
- Military presence still retained in Hong Kong and Macau.

PLAYER 3 – United States of America

- Political interference and harbinger of democratic movements.
- World's 3rd Largest Economy in terms of GDP at PPP – 34102 \$bn.
- Focussed at recovering the position of being the Strongest Superpower on the World Stage.

PLAYER 4 – India

- Retains the tag of being the World's Largest Democracy.
- World's 2nd Largest Economy in terms of GDP at PPP – 44128 \$bn.
- Focussed at overtaking China on the World Stage.

PLAYER 5 – Macau

- Is in a similar situation as Hong Kong; Freedoms enshrined under the Sino-Portuguese Joint Declaration to end in 2049 .

PLAYER 6 – Taiwan (Republic of China)

- Chinese claim over Taiwan still exists.
- Taiwan still retains its democracy despite Chinese threats.
- Taiwan is still not recognised as a member of the United Nations.

¹ PwC, *The Long View How will the global economic order change by 2050? – The World in 2050*, PRICEWATERHOUSECOOPERS (February 2017)

PLAYER 7 – United Nations

- Considered to be a silent spectator with advisory role as two United Nations Permanent Members (United States of America, People’s Republic of China) are players in the scenario.

SCENARIO I

Agitation and unrests in Hong Kong for independence continue till 2047. China exercises its extreme economic, political and military prowess to seize Hong Kong forcefully.

PLAYER 1 – Hong Kong

- The Special Administrative Region of Hong Kong ceases to exist.
- Curtailment of freedoms of speech and expression.
- An outflow of capital and businesses from Hong Kong to emerging nations like *India, Philippines* and *Indonesia*.
- An influx of migrants from Hong Kong to other developed countries like *Australia, Canada, United States of America, United Kingdom* and ideologically allied countries like *Taiwan*.
- Persecution of Pro-independence activists under an authoritarian Chinese regime.

PLAYER 2 – People’s Republic of China

- Cements its place as a major world power and leads to establishment of a new world order
- Possibility I : The excess use of force and military strength may paint a hostile image of the Chinese state, thus harming its economy a little.
- Possibility II : A show of strength and confidence may boost its global image as a super power; may attract wayward firms from the erstwhile region of Hong Kong to the booming city of Shenzhen; strong nationalistic movement may strengthen the authoritarian regime
 - Sub-Possibility I : A further crackdown on the rights of its citizens; gateway to harsher human right violations
 - Sub-Possibility II : A stronger impetus to its economy thus helping it maintain its lead over the United States and India

PLAYER 3 – United States of America

- A large influx of immigrants from the erstwhile SAR of Hong Kong
- Possibility I (Highly Unlikely) : A military process to try and preserve the democratic liberties of Hong Kong; used as a pretence to assert its former global position. Likely to not succeed due to strategic hold-ups in South Asia, as observed in the Vietnam War.
 - Sub-Possibility I : Liberating Hong Kong would help it assert its former glory as the world's sole superpower.
 - Sub-Possibility II : A direct military defeat to China would paint the United States in obscurity and would result in China establishing absolute dominance on the world stage.
- Possibility II (Highly Likely) : The US issues condemnation statements but does not proceed with any kind of action so as to not hamper its trade relations with China

PLAYER 4 – India

- Would be viewed as a more amiable state to live and conduct business in.
- A large influx of investments from entities who shift away from the bustling financial hub of Hong Kong.
- Growing national security concerns as China's restraint on using military force no longer applicable; Escalation of the Arunachal Conflict.

PLAYER 5 – Macau

- The smaller region of Macau would either surrender or be simultaneously annexed by the People's Republic of China; would result in migration.
- The famous gambling industry would be heavily regulated by the Chinese state.

PLAYER 6 – Taiwan (Republic of China)

- A threat to the democracy and sovereignty of Taiwan.
- Escalation of territorial dispute with China.
- Massive influx of immigrants from Hong Kong and Macau

PLAYER 7 – United Nations

- The problem of conflict related migration would occupy centre stage; a new framework to regulate and systemise the flow of migration would have to be devised

- An armed conflict by an UNSC Permanent Member would affect the United Nation's Credibility.

SCENARIO II

Agitation and unrests in Hong Kong for independence continue till 2047. China cedes to Hong Kong's demand for independence.

PLAYER 1 – Hong Kong

- The Special Administrative Region of Hong Kong ceases to exist; The independent nation of Hong Kong – on the lines of Singapore comes into being.
- Retainment of freedoms of speech and expression.
- An inflow of capital and businesses to Hong Kong attributed to its existing free trade laws and clearing of ambiguity with regards to its existence.
- A change in the structure of its Executive and Legislature thus endowing it with the features of an independent democracy.

PLAYER 2 – People's Republic of China

- Cements its place as a major world power which accommodates other ideologies; would be subject to international acclaim if the People's Republic of China remains under an authoritarian regime.
- The economic loss due to ceding Hong Kong would not be substantial as the city of Shenzhen would be a lot more economically powerful and relevant than Hong Kong.
- This move could also be a gateway to relaxation of the heavy regulation and authoritarianism of the Communist government.

PLAYER 3 – United States of America

- Willingness of China to cede Hong Kong and express its willingness to embrace a few facets of liberalism would lead to better Sino-American relations.
- Alternatively, the United States of America could also try lobbying and securing Hong Kong to be a part of its bloc against China; Hong Kong could complement the American influence of Japan to try and counter the presence of China in the South Asian neighbourhood.
- Taking a cue from China, the United States of America may also loosen its hold on American Overseas Territories

PLAYER 4 – India

- China with a softer stance on geo-political disputes may lead to de-escalation of the Arunachal conflict; this may lead to better Sino-Indian relations thus strengthening the hold of Asia on world politics.
- Conversely, stronger Sino-American relations may harm India's economic prowess; national security concerns with Pakistan may also flare up if either USA or China backs Pakistan.

PLAYER 5 – Macau

- The Special Administrative Region of Macau, on the heels of the Hong Kong independence, would also gain independence.
- Conversely, the people of Macau may also choose to assimilate with the People's Republic of China as they are historically closer to China; The Pro-independence movement in Macau may thus never gain any traction.

PLAYER 6 – Taiwan (Republic of China)

- De-escalation of territorial dispute with China.
- A softer and more liberal China would enable Taiwan to actually try and establish better relations with China.
- Conversely, an independent Hong Kong may also mean more resources to be employed by the People's Republic of China against Taiwan.

PLAYER 7 – United Nations

- Prevention of an armed conflict and ensuring that one of its most powerful members is aiding the spread of peace and democracy would greatly enhance the United Nation's Credibility.
- A stronger United Nation would symbolise a more vibrant chapter in International Relations as there would exist a tried and tested regulatory and supervisory authority in the form of the United Nations.

SCENARIO III

Agitation and unrests in Hong Kong for independence continue till 2047. China maintains the status quo of the Special Administrative Region of Hong Kong for a permanent and established time period.

PLAYER 1 – Hong Kong

- The Special Administrative Region of Hong Kong continues to exist; The foreign relations and defence of the realm still lies under the purview of the People's Republic of China.
- Retainment of freedoms of speech and expression; continuance of the Pro-Independence movement.
- An inflow of capital and businesses to Hong Kong attributed to its existing free trade laws, proximity to China and clearing of ambiguity with regards to its existence.
- Few changes in the structure of its Executive and Legislature thus endowing it with at least some features of an autonomous democracy.
- Migration from People's Republic of China to Hong Kong; further aggravating its housing crisis.

PLAYER 2 – People's Republic of China

- China would retain its control over the defence and external affairs of Hong Kong thus maintaining status quo of its power in the region; it would also incentivise its economy as industries could be set up in China which could also harness Hong Kong's free trade laws.
- The creation of the Pearl River Delta Bay Area would boost the economy tremendously as Guangzhou, Shenzhen, Hong Kong and Macau would be connected seamlessly.

PLAYER 3 – United States of America

- The American ideals of liberalism and capitalism could be used to fan tensions against China in Hong Kong in case of a future trade war.
- Taking a cue from China, the United States of America may also exercise the same control on American Overseas Territories thus continuing with the trend of neo-colonialism.

PLAYER 4 – India

- An authoritarian China with a strong hold on the economic centre of Hong Kong may affect the service sector in India as the ambiguity with regards to the

status of Hong Kong would have been resolved thus forcing India to come up with better plans to attract investors.

- India would also have to develop seamlessly connected megapolises to rival the Pearl River Delta Bay Area. These include the NCR Region, Mumbai-Pune corridor and the Chennai-Bengaluru corridor.

PLAYER 5 – Macau

- The Special Administrative Region of Macau, on the heels of the Hong Kong independence, would also retain its Special status.
- Conversely, the people of Macau may also choose to assimilate with the People’s Republic of China as they are historically closer to China; this is aided by the fact that the Pro-independence movement in Macau never gained any traction.

PLAYER 6 – Taiwan (Republic of China)

- Taiwan may still be at loggerheads with China as its decision to maintain status quo on the issue of Hong Kong’s autonomy would also be a decent indicator of its intent to maintain status quo in other territorial disputes.

PLAYER 7 – United Nations

- Prevention of an armed conflict and ensuring that one of its most powerful members doesn’t abuse its power would moderately enhance the United Nation’s Credibility.
- A stronger United Nation would symbolise a more vibrant chapter in International Relations as there would exist a tried and tested regulatory and supervisory authority in the form of the United Nations

ANALYTICAL CONCLUSION OF THE POST-2047 HONG KONG SCENARIOS

Applying Game Theory to the three varying Post-2047 Hong Kong Scenarios provides us with three varying set of observations which can be summarised by the following table :

SCENARIO NUMBER	SCENARIO	OUTCOME
1	<i>Hong Kong is seized forcefully by the People’s Republic of China</i>	<ul style="list-style-type: none"> • The capitalist way of life and freedom in Hong Kong is replaced by an authoritarian regime.

		<ul style="list-style-type: none"> • Use of force by China marks the onset of a new global order with Chinese assertion of dominance. • A migration crisis is ensued.
2	<i>The People's Republic of China cedes to Hong Kong's demand for independence</i>	<ul style="list-style-type: none"> • A more stable city-state of Hong Kong is established. • China would receive immense international acclaim for ceding and respecting a rival ideology. • Peace would be restored in South Asia due to the emergence of a relatively flexible Chinese regime.
3	<i>Hong Kong retains its status of Special Administrative Region under the People's Republic of China</i>	<ul style="list-style-type: none"> • Sustenance of the Pro-Independence sentiment and movement in Hong Kong. • China would not garner any major negative reaction from the International Community. • A Semi-autonomous Hong Kong could serve as a playground for the 21st century ideological cold war between the United States of America and the People's Republic of China.

It can be observed from the above table that it would be very conducive for world peace and international fraternity that China respects the sentiments of the people of Hong Kong leading to granting it independence. But the 21st century is notorious for the rise of neo-nationalism across the world. The territorial integrity of a nation is viewed to be proportionate to the identity and strength of a nation on the world stage.

The communist regime of People's Republic of China relies heavily on political grandstanding and show of strength. The use of excessive force during the ongoing protests show its intent to dissuade any kind of dissent to Chinese encroachment on Hong Kong. In view of these facts it is also likely that post-2047, China may pander to its nationalistic sentiment and forcefully annex Hong Kong with an aim to signify its dominance on issues in world politics. This may fuel and aggravate a migration crisis that the current political infrastructure is not equipped to handle.

While ambiguity about the status of Hong Kong and its people post 2047 looms, one thing is certain – there is a need for dialogue to be established and negotiations have to be commenced at the earliest possible juncture to prevent a sordid confrontational flash point as the 2047 crisis approaches.

Aditya Sharma is a fourth year law student at Symbiosis Law School - Pune, India. His research interests include Politics (Domestic and Global), International Law and the role of Solar Energy in shaping the next millennium's geo-politics.