

CHAPTER 1

Introduction

How did we get to the modern western centered world? Modernization is synonymous with westernization, and western nations dominating current world affairs, the western economies and companies generate most of the world's nominal wealth with western ideas and values shaping the world's cultures. To answer that is to address what caused the rise of the west above all other major cultures of the world, including Islamic, Indian, Chinese and Japanese, in the early modern era. To view it in a broader perspective, what are the forces that shaped the general contours of world history and the rise and fall of civilizations?

The inquiry into the accumulation and distribution of wealth amongst nations is the *raison d'être* of economics.¹ But even now, this inquiry has not yet been completed with many conundrums still exist. One conundrum that exists in economics development and economic history in particular, is of course the spectacular economic rise of the West. The economic rise of the West, also termed the European miracle within the literature, refers to the industrialization and modernization of Europe ahead of all the other Eurasian major cultures in the early modern era.² Growth rates of European economies were higher than the world average throughout several centuries starting from circa 1400 AD. From ca 1400 AD onwards, Europe underwent those economic, political, social, technological and geographical upheavals which were to make it the birthplace of the industrial world. The advance of Europe relative to the rest of the world was in all spheres of human endeavors: Europe forged ahead economically, politically and militarily. The industrial revolution of England and then Europe was part of this phenomenon. This is near-miraculous, for during

1 Refer to Smith (1776).

2 Refer to Pomeranz (2000) and Jones (2002).

the medieval era, the Arabian and the Chinese world (which was the Cathay of Marco Polo), as well as the Indian subcontinent, were ahead of Europe in terms of economic development.

The rise of Europe might seem unlikely initially, for from ca 1200 AD onwards, only Europe operated under a competitive state system, with rivals (almost evenly-matched in terms of military and economic might) constantly competing for power. Other civilizations were ruled by continental-size empires. Europe suffered from constant interstate wars and differences in languages and administrative practices. On the other hand, the other civilizations enjoyed peace, uniformity in administrative practices and the convenience of an official language used across a unified empire. Nevertheless, despite these disadvantages, Europe modernized while the rest of the world stagnated. This energy of Europe and relative inertia of the rest of the world was maintained for centuries until the gap was so wide that European global supremacy was established: Europe entered the modern world, while the other major cultures had remained medieval or even regressed. The big question is: where did the sudden spurt of energy in the European economies come from?³

The difficulty in explaining the European miracle is not unique: there are many other instances of very long-term economic changes that are also hard to account for. A well-known case is the high economic achievement of China during the Song dynasty. The high economic achievement of the Song Dynasty is called the Song puzzle, for this high achievement was not repeated in the later history of China.⁴ The Chinese economy stagnated or even declined in the later centuries. Other similar puzzles include the leadership of Mesopotamia in early civilizations, which failed to continue during the classical era; the explosions in human achievements in Greece, Ganges India and China during the axial age; and, the Eurasian dominance over America, Africa and Oceania in the development of civilization.

What caused these instances of very long term (that is, a few centuries or longer) economic progress and decline? The inquiry into very long term economic performance is a separate field by itself, different from most economic studies that focus on the medium or short term performances.⁵ Most economic enquiries have their explanations at the level of individual economic agents, that is, the consumers or the firms. This is named micro foundation, the hallmark of mainstream neoclassical economics. North (1987, 1990) argues that these theories explain the mechanism of growth but not the causes of growth.

³ This is the question raised by Kennedy (1987) at the beginning of the book.

⁴ Refer to Elvin (1973) and Jones (1981, 1988, 1990).

⁵ Refer to Schumpeter (1911), Baran (1957), Franks (1975), Martinussen (1997) and Barro and Sala-i-Martin (1998) for related treatments.

North (1987, 1990) posits that factors that are important in affecting very long term economic performance are different from those that are critical in determining medium or short term performance, which most economists focus on.

The Rise of the Western World: A New Economic History (North and Thomas, 1973) is one of the earliest and most prominent works explaining very long term economic performance. North and Thomas (1973) argue that efficient property rights regimes were the basis of the European miracle.⁶ Fluctuations in population in Europe and changes in relative factor prices produced the efficient property rights regimes and institutions that in turn formed the basis for economic progress and the subsequent industrial revolution. The main driving force of progress was the increasing population to land ratio in Europe after the recovery from the scourge of the Black Death. An increasing population to land ratio in Europe generated changes in relative prices and produced efficient property rights regimes and institutions, which as stated earlier, were the basis for the European miracle. North (1979, 1981, 1984) extends the thesis of North and Thomas (1973) and argues that the predatory state which extract resources from economy without institutional check and balances is the main cause of man-made economic declines in history. Levy (1981, 1988), Olson (1993, 2000) and Acemoglu and Robinson (2012) agree along the same line and further the research. Olson (1993) observes that:

“Individual rights to property and contract enforcement were probably more secure in Britain after 1689 than anywhere elsewhere, and it was in Britain, not very long after the Glorious Revolution, that the Industrial Revolution began.” (574)

Another important line of research about the rise of the West studies the role of international political and military rivalry in affecting economic performance. One of the ways that international rivalry could affect economic performance is through influencing the choice and design of political, economic and property rights institutions. Jones (1981) argues that the unique geopolitical environment and state system of Europe was the cause of the European miracle. Competition between states generates concern for national power, including economic and military progression. Consequently, European states tried to outperform each other in all spheres of endeavors that have significance for national power. Europe was propelled forward with great speed due to such international political military competitions.

⁶ Refer to Coase (1937, 1960, 1988) and Barzel (1989) for property rights economics.

North (1981, 1995, 1998) shared the view of Jones (1981). While stressing the role of institutions and property rights regimes in affecting economic performance, North (1981) posits that the competition between European states was a source of institutional change that led ultimately to the European Miracle. Intense and prolonged interstate rivalry led to changes in political and economic institutions as states became more inclusive in order to get support from wider social groups to sustain their effort for greater power at the international arena and that led to better economic performance.⁷ North (1995, 1998) reiterates his position in North (1981) to explain economic development by international political military competition. North (1995) notes that:

“.....Even the relative failures in Western Europe played an essential role in European development and were more successful than China or Islam because of competitive pressures.” (26)

The “relative failures” here refers to countries such as Portugal or Spain that were once forerunners in European economic development but somehow were overtaken later by countries such as Netherlands and England.

Jones (1988) further develops the basic theme of Jones (1981) in the case studies of Song China and Tokugawa Japan, and Jones (1990) provides a more detailed study of the Song China’s high economic achievements. Jones (1988) calls for case studies of other major instances of very long-term economic changes in a world historical framework. Jones (2002) repeats this exhortation.⁸

The call did not go unanswered. Bernholz et al. (1998) and Bernholz and Vaubel (2004) answer the call by formulating the Hume-Kant hypothesis and testing it against practically the whole of world history. Bernholz et al. (1998) and Bernholz and Vaubel (2004) termed the theory that explains economic development by the nature of the international political system the Hume-Kant Hypothesis and presented case studies that cover almost the whole written history of mankind. According to Bernholz and Vaubel, they themselves weren’t the originators of the Hume-Kant hypothesis—they see its assertion, under varying names, in many writers through history. The Hume-Kant hypothesis has echoes in many prominent thinkers and scholars from all academic fields over the centuries. Among these thinkers and scholars are Gibbon (1787), Weber (1923), Wesson (1967, 1978), Rostow (1974), Baechler (1976, 1988), Kennedy (1987), Parker (1996) and of course, North (1981, 1995, 1998) and Jones (1981, 1988).⁹

⁷ Lake (1992) observes that democracies have been about twice as likely to win wars as have dictatorships.

⁸ Refer to Bentley and Adas (1995) and Buzan and Little (2000) for similar endeavors.

⁹ Wesson (1978, p. 250) cited: “..... As Francis Bacon opined, “No body can be healthy

The Hume-Kant hypothesis argues that the state system, with its pluralistic international power structure, has superior economic performance to the imperial order, where power is monopolized by the imperial regime. David Hume and Immanuel Kant were the earliest advocates of the theory that the state system was the basis of progress of civilization.¹⁰ The following quotations from David Hume and Immanuel Kant give the hypothesis its name:

David Hume (1742, *Of the Rise and Progress of the Arts and Sciences*):

"That it is impossible for the arts and sciences to arise, at first, among any people unless that people enjoy the blessing of a free government." (61)

"That nothing is more favourable to the rise of politeness and learning than a number of neighbouring and independent states, connected together by commerce and policy." (64).

"Where a number of neighbouring states have great intercourse of arts and commerce, their mutual jealousy keeps them from receiving too lightly the law from each other, in matters of taste and of reasoning, and makes them examine every work of art with the greatest care and accuracy." (65)(as cited in Haakonssen eds. (1994, pp. 58-77).)

Immanuel Kant (1784):

"Now the states are already in the present day involved in such close relations with each other that none of them can pause or slacken in its internal civilization without losing power and influence in relation to the rest ... Civil liberty cannot now be easily assailed without inflicting such damage as will be felt in all trades and industries, and especially in commerce; and this would entail a diminution of the powers of the State in external relations ... And thus it is that, notwithstanding the intrusion of many a delusion and caprice, the spirit of enlightenment gradually arises a great good which the human race must derive even from the selfish purposes of aggrandizement on the part of its rulers, if they understand what is for their own advantage." (as cited in Gardiner ed. (1959, pp. 22-34).)

Bernholz (1998) paraphrases the hypothesis as follows:

without exercise, neither natural body nor politic; and certainly to a kingdom or estate, a just and honorable war is the true exercise ... for in a slothful peace, both courages effeminate and manners corrupt" *Essays*, "Of the True Greatness of Kingdoms".

¹⁰ Refer to Bernholz and Vaubel (2004, p. 1).

"... military and international political competition among states has forced rulers to grant safe property rights, rule of law and reasonably low and calculable taxes to their subjects. For states following such policies were, in the long run, more successful in this international political competition since they could employ larger resources and were more innovative militarily. But both resources and innovativeness were dependent on favorable economic development. The economy, however, flourished best in states which, by chance or design, introduced safe property rights, a reliable legal system, free markets, stable money, etc. Moreover, citizens well-satisfied with their economic plight and accepting the political regime were presumably better prepared to fight for the survival or even expansion of their country." (109-110)

In testing the Hume-Kant hypothesis, Bernholz et al. (1998) and Bernholz and Vaubel (2004) have case studies that cover almost the whole of world history: ancient Sumer and Phoenicia, classical Greece, the Roman Empire, medieval and modern Europe, imperial China, pre-modern Japan, India and the Islamic world. North (1998) is one of the contributors in Bernholz et al. (1998) and agrees with the Hume-Kant hypothesis. North (1998) posits that:

"The ubiquitous competition among the evolving nation states was a deep underlying source of change and equally a constraint on the options available to rulers within states. It was the competition that forces the Crown to trade rights and privileges for revenue, including, most fundamentally, the granting to "representative" bodies – variously Parliament, Estates General, Cortes – control over tax rates and/or certain privileges in return for revenue. Equally, competition amongst states offered constituents alternatives – states to which they might flee or send their moveable wealth, thus constraining the ruler's options." (24)

Among those that agree with the Hume-Kant hypothesis are Weiss and Hobson (1995). Weiss and Hobson (1995) argue that an important drive behind the American and English as well as other nations' industrialization was the intervention of the state on the economy due to the expectation of coming war, the preparation for war, the actual conduct of war, and the post-war reorganization.¹¹ Weiss and Hobson (1995) explain that an important cause behind conscious efforts of the state to build a strong economy is the intense military contests that can occur between states. In such contests, economic might and

¹¹ Refer to Weiss and Hobson (1995, Ch. 3). Refer to Evans et al. (1985) for the need to bring the state back in when doing social sciences analysis.

industrial capacity are the keys to victory.¹² States with weak militaries and economies suffer defeats and at times are taken over. Weiss and Hobson (1995) point out that with intense military contests, the state has an incentive to correct market and institutional failures and promote economic growth. This explains the early modern European and pre WWII Japanese industrialization and the recent East Asian newly industrializing economies' economic development.

Explaining economic development by international political military competition allows the examination of how natural selection replaces—or doesn't replace—inefficient institutions with efficient ones, and weak states with strong ones. This natural selection mechanism comes from the competition between states through wars and military contests. In the competitive state system of Europe, where there were constant large-scale and decisive military contests, the mechanism was working effectively. In contrast, in an imperial order such as that which existed in China, the mechanism was weak or nonexistent most of the time. Consequently, in noncompetitive imperial order, there were suppression of commerce and the merchant class; state monopoly; excessive regulations; foreclosure of internal and external trading activities; personal rule (versus the rule of law), which in turn leads to the insecurity of property rights; few public services in return for the high level of extraction; and, probably most important of all, state-enforced orthodoxy in thinking, which stifles intellectual creativity and scientific inquiry—these are the reasons that cause empires to have economic failures.¹³

Political military competition generates competitive pressure for states to constantly increase productivity by institutional and technological creativity. The result is a permanently higher economic growth rate. Like Lewis Carroll's red queen in *Through the Looking-Glass*, states in an intensively competitive international political system must put in great effort just to keep up with their diligent and innovative rivals. To get ahead of competitors requires an even higher growth rate through greater innovations and creativity by truly extraordinary gigantic effort. Remember the red queen's answer to Alice? "Now, here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!" The competitive pressure to at least keep pace with, if not get ahead of one's rival, in terms of productivity, efficiency, resources and prowess generates a constant stream of gains in higher economic growth and technological progresses and institutional improvements. In the long term, human diligence and creativity are the most important factors in determining progress and prosperity.

¹² Refer to Kennedy (1981).

¹³ Wesson (1967) studies the economic failures of imperial orders, especially in chapter 4, 6 and 7. Wesson (1978, pp. 87-90) analyzes the positive effects of interstate competitions on development.

Another important way that military technology affects economic performance is through affecting the resource extraction capacity of state domestically. States with great resource extraction capacity could better finance provisions of public goods, including public intermediate inputs. Furthermore, political military competition provides states the incentive to improve public goods provisions for better economic performance. Tilly (1975, 1992), who shares the view that it was political military competition that drove the European states to modernize, argues that there was a relationship between the scale of international conflicts, the choice of state fiscal apparatus and level of services rendered, and military capacity. The initial spark to the chain of events in Europe was the series of innovations in military technology that increased the economies of scale in warfare from the sixteenth century: the so-called military revolution.¹⁴ Tilly (1975, 1992) attributes the rise of modern European national states to the more frequent and large-scale interstate wars in Europe following this military revolution. States built up bureaucracies and replaced indirect rule with direct rule. The larger scale of international conflicts pressured the states to increase their fiscal, economic and military capability; the rise of largescale standing armies (and navies) and largescale warfare brought forth the bulky modern national states and modern economies. Tilly (1975), put it this way: "War made the state, and the state made war." (42)

Tilly (1975) summarized the European experience in state making and war making in this way:

"The formation of standing armies provided the largest single incentive to extraction and the largest single means of state coercion over the long run of European statemaking. Recurrently we find a chain of causation running from (1) change or expansion in land armies to (2) new efforts to extract resources from the subject population to (3) the development of new bureaucracy and administrative innovations to (4) resistance from the subject population to (5) renewed coercion to (6) durable increases in the bulk and extractiveness of the state." (73)¹⁵

Tilly (1992) observes that the number of political units in Europe declined from over a thousand in the eleventh century to a couple of dozens in the nineteenth century. The risk of being eliminated from the political landscape was

¹⁴ Refer to Tilly (1975, 1992) and Parker (1976, 1996), Duffy (1980), McNeill (1982), Dudley (1991), Keegan (1993).

¹⁵ Refer to Hintze (1975), Tilly (1975, 1992), Duffy (1980), Cohen, Brown and Organski (1981), Blum and Dudley (1989), Rasler and Thompson (1989), Downing (1992) and Porter (1994).

therefore very high. Tilly (1992) finds that strength of the economy was very important in deciding the outcome of great power rivalry: international political and military competition weeded out inefficient states with weak economies and non-functioning institutions. States were thus pressured to reform inefficient institutions and policies, and to improve both their economic performance and extracting and mobilizing ability.¹⁶

This book argues that military technology and geography have a great impact on the international political structure, especially the distribution of military and economic capability within the system. The distribution of capability and the economies of scale in warfare jointly decide the level of intensity of political military competition within an international system. If there is a high level of competition, then there will be superior very long term economic performance. A good example is the competitive state system of Europe during the European rise to global economic dominance. On the other hand, if competition is minimal, then there will be economic stagnation or decline. Good examples are ancient Egypt (during the Old Kingdom) and imperial China. Furthermore, the distribution of power within an international political affects not just the intensity of political and military competition but also the risk attitude of a state. When the constituent states of an international system have very unequal power positions, the stronger contestant becomes complacent and risk-averse since he has much to lose and very little to gain by taking risk while the weaker contestant is insecure and risk-seeking as he has much to gain and very little to lose. Extremely high risk-averse and risk-seeking attitudes are not beneficial for long-term development. Contestants with extremely high risk-averse or risk-seeking attitudes will undertake pricey measures to either guard against uncertainty, or to gamble in excessively risky ventures at the expense of average long-term gains of the economy.

Some of the case studies in Bernholz and Vaubel (2004) do not fit well in the original Hume-Kant hypothesis. Specifically, the Hume-Kant hypothesis has difficulty explaining the economic performance of Japan under the Tokugawa Shogunate, the splendid cultural and economic achievements of India during the reign of the Gupta Empire, and the cultural creativity and economic vitality of the Islamic civilization under the Umayyad and Abbasid Caliphates. Bernholz and Vaubel (2004) are also unable to account for the failure of Southeast Asia to be at the forefront of human civilizations despite several potentially-advantageous factors: the continuous functioning of a Southeast Asian state system since the late classical era, the auspicious position of Southeast Asia as a crossroads of major civilizations, and the abundance of resources in Southeast

¹⁶ Kennedy (1987) has the same finding.

Asia.¹⁷ By studying how military technology affects geopolitics and very long term economic performance, this book is able to account for the above cases that eluded the Hume-Kant hypothesis.¹⁸

17 Refer to Cook (2004).

18 Refer to Cowen (1990) for a related treatment.

Musket, Map and Money:

How Military Technology Shaped Geopolitics and Economics
