

Suez Canal: Another dimension in the European Network

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Introduction.

The Suez Canal is outside Europe's geographical boundaries. At present it is owned by Egypt. Europeans are no longer shareholders nor are they members of the Board of Directors. Yet, for all practical purposes, the Suez Canal remains a strategic dimension in the European economic and political network which has been evolving since the beginning of the modern period, or roughly since the middle of the XVIIth century. This is primarily an interpretive study since all, or almost all, the facts relating to the building and operation of the Canal are known. The economic and business records are intact and open to inspection. Though certain positions of individual countries regarding the construction, management and control of the Canal may be subject to interpretation, the official data records do not change. In this study I propose to analyze the following assertions:

1. Europe was trying to expand its network beyond its territorial boundaries long before the Suez Canal was built. Therefore, the building of the Canal was basically an implementation of ideas and proposals that had been in circulation for many decades, if not centuries.

2. The Canal performed a complementary function to the other media and means of transportation and communication serving Europe, even though a certain degree of competitiveness might have existed in the early years of planning and building the Canal.

3. The Canal, at all times, including the period following its nationalization by Egypt in 1956, has remained an important segment of the European network, by functions and distribution of benefits, if not by title or ownership.

4. In contrast, though totally on Egyptian soil, the Canal has been of limited benefit to Egypt, North Africa, or the Middle East, and in certain ways it has served a negative function. It increased the incentive of the European powers to dismantle the Ottoman Empire, divide its dominions among themselves, and establish colonial footholds in Africa and Asia through control of the Canal.

In the following section I shall present the conceptual framework of the study, to be followed by a brief history of the Canal, with only enough facts and figures to establish its significance as a part of the European, not Middle

Eastern, or Egyptian network. I shall then present an assessment of the distribution of the net benefits of the Canal, and show how the benefits to Europe have turned out to be costs to Egypt and other parts of the Middle East, both politically and economically. The final section will include a few tentative conclusions.

Conceptual Framework.

A network is a set of links that connect different parts of a system and thus make it possible for the different parts of the system to function as an economic, political, or social entity. The entity may be a city, a region, a country or, as in the case of Europe, a continent. The network may be a system of communications, roads, waterways, or air corridors, or it can be a system of finance, marketing, or business activities. In most cases, the network combines some or all of these elements. The network is usually designed and created for a purpose. Rarely is it an act of nature. Therefore, the creators of the network must expect benefits from operations of the network, whether in the form of profit, power, dominance, or simply expansion of the boundaries of the entity. The effects may be reflected in the unification and integration of the various extended parts of the entity, or by pushing its boundaries outward and thus enlarging it. The network could, of course, be expansive by increasing the benefits of a given entity simply by excluding others from the territories served by that network. The network could also be a source of comparative advantage and a motive for more severe competition among the potential users of the network. By the same token, control of the network could be a source of threats to its controllers because others may be harmed by their exclusion and therefore may be willing to challenge the presumed «biased» distribution of benefits, sometimes even by resort to force. In other words, while the network may accrue benefits to certain parties, it may incur costs to others, either by losing some of what they have, or by gaining less than they would have in the absence of such exclusion.

A Brief History of the Canal.

The Suez Canal's history is replete with illustrations of threatening competition among the European powers for control of the Canal, redistribution of benefits including power, and of losses suffered by certain countries, especially Turkey and Egypt. A canal connecting the Mediterranean with the Red Sea and thus the western world with Asia and the Far East was contemplated as far back as several centuries B.C. Although most of the ideas of such connection were of land routes from Alexandria to the Red Sea, or of waterways branching out of the Nile delta to reach the Red Sea, not much could

be done until certain necessary technological, political and economic conditions were satisfied.

Technologically it was necessary to show that the Mediterranean and the Red Sea were at the same level and that a canal between them would not create a major current and a flooding of the canal area by the higher-elevation sea. The analysis and debate of these technical points did not conclude until the middle of the XIXth century. Another technological condition that seemed conducive to building the canal was the advent of steam shipping and the use of the compound steam engine which gave the steam ship advantages over sail. Given that a canal would be a contained narrow body of water, the sail would be at a great disadvantage because of the limited wind power in such an environment. The use of compound steam in shipping did not begin until the late fifties and early sixties of the XIXth century.

Another somewhat technical condition to be satisfied was the guarantee of supplies of labour to use in digging the canal. Until the Khedive of Egypt was ready to apply the *corvée* system or an equivalent form of forced cheap labour in large numbers, it seemed hardly feasible to build the canal. [The system of forced labour was formally abolished in 1866. Joseph A. Obieta, *The international status of the Suez Canal*, The Hague: Martinus Nijhoff, 1960, p. 6] Though the mobilization of labour had political underpinnings, in this context it is considered as a necessary condition to guarantee an adequate supply of labour. It is not certain that recruiting wage labour through the market mechanism would have secured an adequate supply, given the lack of communication between city and country in Egypt, the hardship entailed by going to work in the projected canal area, and the high cost of recruiting labour in this environment by the market system. Thus, the Egyptian government's cooperation in mobilizing labour was essentially a technical rather than an economic solution to an economic problem.

The political conditions also had to be appropriate. The Sultan of Turkey, though a nominal sovereign over Egypt, still had to approve before any work could be commenced. It was necessary also to secure approval of the Khedive of Egypt. The Ottoman Empire was already in decline by the middle of the XIXth century. The reforms introduced in the 1830s and 1850s did little to rescue the ageing and ailing government of Turkey. Turkey's weakness had at least two effects. First, it made Turkey and its Sultan vulnerable to European threats, bribes and financial indebtedness. Extending large loans to the Sultan to allow him to continue to live in affluence eventually made him a hostage of European power, and thus made his consent to build a canal highly probable. Second, and more important, the weakening of the Sultan resulted in empowerment of the Khedive of Egypt. The struggle between the Sultan and the Khedive took a serious turn under Mohamad Ali, in favour of the latter, but it never subsided so that the Sultan was entitled to nominal homage and the payment of a tribute as the price of more independence for the Khedive of Egypt. Mohamad Ali was not in favour of building a canal for fear of foreign intervention in his country

and even of possible occupation. His successor, Abbas, also was reluctant to approve, but his son Said, a friend of Ferdinand de Lesseps since childhood, was willing to do so and thus issued a concession to de Lesseps in 1854, though it is not certain that he had a choice. The Europeans were strong, Turkey was weak and Egypt had neither the economic nor the military power to oppose the Europeans. Thus, securing agreement from the Khedive was no longer in doubt, but he could bargain for benefits once the canal was built. [Obieta, *op. cit.* p. 5]

Politically speaking, the Suez Canal offered many advantages over any land routes that might have been used to connect Europe with the East. The northern route from Russia involved crossing the boundaries of many countries, including some that were powerful and competitive, such as Russia and Turkey. A land route from the Mediterranean through Western Asia would also involve many countries and Ottoman provinces with which agreements had to be concluded, but these countries were less powerful than those that would be encountered on the northern route. Both these routes, however, would be difficult to defend and maintain, let alone to secure against marauders and robbers. Even a railway or a land route from Alexandria to Suez would be more costly and more hazardous than a direct waterway from the Mediterranean to the Red Sea. A canal from the Mediterranean to the Gulf of Suez on the Red Sea with guaranteed free passage to all would be almost the equivalent of using international waters from Europe to India and China.

The economic and financial conditions necessary for building the canal were fulfilled when de Lesseps took charge and established the Suez Canal Company as a business proposition. The shareholders, governments or individuals, had great expectations of high profits. These expectations were not unrealistic, given the increasing flow of trade between industrializing Europe and the countries of Africa and Asia which were hungry for manufactured goods and for markets to sell their primary products to pay for those manufactured goods. The profit expectations were enhanced by the estimated social savings over the Cape of Good Hope route around Africa because of the shorter distance, and the shorter travel time which allowed export of meat, wheat, and other perishable commodities from New Zealand, Australia, and India. The profit expectations were also strengthened by the fact that nation states were shareholders able to make the Suez Canal Company a monopoly with power to set rates at levels that guaranteed profits for its shareholders.

Whether for political or economic considerations, the disputes between France and Britain, which had great objections to the building of the Canal, were related more to who would prevail in Egypt and the Middle East than to whether a canal should or should not be built. Britain had explored, as a substitute for the canal a railway from Alexandria to Suez that would guarantee its continued influence and superiority, especially if such a railway were built by British business: Robert Stephenson, son of George Stephenson, builder of the first railway, was to build that railway. However, common sense and the evident competitive position of a canal from the Mediterranean to the Red Sea eventually

prevailed. De Lesseps had his way with the Khedive, with the Sultan, and with the French government. The Canal was opened in 1869 as an Egyptian canal, commemorated by the opera *Aida*, but soon it fell under control of the British who bought Egypt's shares in 1875 and landed troops in Egypt in 1882 to suppress the Arabi revolt and save both the Khedive and the symbolic suzerainty of Turkey, at least for the time being. However, for all practical purposes, from then on the Canal became a part of a network in the service of Europe.

Facts and Figures.

The first immediate effect of the Canal was to cut the distance between Europe and the Far East. Table 1 shows the savings in nautical miles realized by the Suez Canal over the Cape of Good Hope route. The savings range from 7.9 percent between London and Sydney, Australia, to a high 42.5 percent saving on the distance between London and Kuwait. The most significant savings, however, were those realized between London and Bombay and between London and Calcutta, two cities which formed the heart of the British Empire.

Table 1. Nautical Mileage from London

To	via Suez	via Cape	via Suez % saving
Bombay	6,200	10,700	42.0
Calcutta	7,900	11,730	32.6
Fremantle	9,340	10,900	14.3
Hong Kong	9,681	13,030	25.7
Kuwait	6,500	11,300	42.5
Shanghai	10,441	13,990	24.3
Singapore	8,241	11,417	27.8
Sydney	11,542	12,530	07.9
Yokohama	11,112	14,257	22.2

Source: D.A. Farnie, *East and West of Suez. The Suez canal in history*, map 3 supplement.

These savings were especially significant for Britain which in 1875 became the second-largest shareholder and from 1870 on proved to be the biggest user of the Canal. At no time between 1869 and 1934 did the share of British tonnage passing through the Canal reach below 50 percent of the total. It stayed around that level from 1834 to 1948, after which it declined, primarily because of increasing usage by the United States. [For more details see Farnie, *op. cit.*, Table 1, pp. 751-2]

European usage of the Canal continued to dominate also after its nationalization by Egypt. For example, in 1966, ten years after nationalization, 69 percent of the northbound dry cargo went to Europe and 35 percent of the southbound cargo came from Europe. One third of Europe's oil imports passed through the Canal. The importance of the Canal to Europe may also be estimated indirectly by the loss due to closure of the Canal between 1967 and 1975. Europe suffered about 49.1 percent of the total annual loss of 1,715 million dollars during that period.* [based on data from Unctad, *The economic effects of the closure of the Suez Canal*, New York, 1973, p. 35] Actually the loss would have been higher in value terms if the higher oil prices which prevailed after 1974 were taken into account.

Usage of the Canal was dominated by Britain, but all the other major users up to World War II were European countries. Nine European countries, Britain, Denmark, France, Germany, Greece, Italy, Netherlands, Norway, and Sweden accounted for over eighty percent of the net tonnage passing through the Canal between 1870 and 1943, and for over seventy percent up to 1950. The decline after 1943 was only a relative decline caused by the increasing use of the Canal by the United States during the Second World War. One might argue that the increasing use by the United States was primarily to the advantage of Europe since United States involvement in the War aided its European allies in their war effort. Furthermore, if usage by all other European countries were accounted for, the total usage of the Canal by Europe would be even higher than the above estimates.* [These estimates are based on Compagnie Universelle du Canal Maritime de Suez, *The Suez Canal*. Notes and Statistics, London and Bradford: Percy Lund, Humphries and Co. Ltd., 1952, Table 2, p. vii]

The use distribution of the Canal was probably anticipated by de Lesseps when he explored ways to finance the Canal's construction. In addition to making the Canal international by function, he tried to make it international, though primarily European, by reserving share allotments in the Company for specific countries. Table 2 shows the distribution of pre-allotted shares and the actual purchases by the respective parties. 68.5 percent of the shares were allotted to European countries. However, when some of the reserved shares were not purchased, the government of Egypt purchased the balance of unsold shares. Even so the share of the European countries was 54.9 percent. This percentage, however, was radically changed when Britain purchased the shares of the Government of Egypt (177,642 shares out of a total of 400,000 shares, though other estimates give the British purchase as 176,602 shares), in 1875, thus raising the percentage of European shareholding to 99.1 percent. Egypt's share was only 998 shares, while Turkey, which had formal suzerainty over Egypt, acquired only 750 shares. Tunisia and Algeria were the only other non-European countries to buy shares. [Hugh J. Schonfield, *The Suez Canal in World Affairs*, New York: Philosophical Library Publishers, 1953, p. 35; Obieta, *op. cit.*, p. 2 for the lower estimate of British shares]

Table 2. Distribution of Shares

	Shares reserved for various countries	Shares applied for and allotted
Egyptian Government	64,000	177,642
Turkey	—	750
Egypt	42,000	998
Tunis	—	1,714
France	80,000	207,160
Algeria	—	728
Great Britain	80,000	Nil
Malta	—	85
Austria	40,000	163
Russia-Wallachia	24,000	174
Germany	—	5
Prussia	—	15
Sweden and Norway	—	1
Denmark	30,000	7
Switzerland	—	460
Netherlands	—	2,615
Belgium	—	573
Spain	—	4,161
Portugal	20,000	5
Italy	—	2,719
Greece	—	25
United States	20,000	Nil

Source: Hugh J. Schonfield, *op. cit.*, p. 35.

Investment in the Canal proved to be highly profitable. The Company was able to distribute dividends annually between 1880 and 1955, except for the World War II period. The share of dividends in total receipts ranged from 20 percent in 1880 to 80.22 percent in 1927. However, during most of the period covered, the share of dividends exceeded 50 percent of the receipts. A rough estimate of the dividends paid between 1895 and 1961 comes to over £ 230 m., while the total share market value in 1875 was less than £ 10 m. Britain bought the shares of the Khedive in 1875 for £ 4 m. and received about £ 86 m. in dividends between 1895 and 1961, while its outstanding shares in 1961 were valued at £ 15m. [Based on data from Farnie, *op. cit.*, p. 755; Obieta, *op. cit.*, p. 2] Thus, the advantage to Europe was dual: saving on costs of transportation of international trade and passenger travel, as well as lucrative returns on the investment.

The use of the Canal facilitated trade in bulk commodities, as well as perishables. However, the volume of cargo passing through the Canal was also

significant relative to world trade volume. Up to 1938 about 7 percent of total world trade went through the Canal. This figure more than doubled after 1947, reaching 15.33 percent of world trade in 1960. [Farnie, *op. cit.*, p. 754] The increase in volume during the second half of the twentieth century was due primarily to the worldwide economic expansion in the 1950s and 1960s and the increased oil imports by Europe and the United States from the Middle East. It was also due to the increased return cargo of imports by the Middle Eastern oil exporters from the industrial countries of Europe and the United States. The dry cargo going through the Canal was 25 million metric tons in 1950; it rose to 51.5 m. metric tons in 1960, to 62.4 m. metric tons in 1965, and to 66.2 m. metric tons in 1966, shortly before its closure because of the Arab-Israeli war. By contrast, the tanker cargo increased from 47.5 m. metric tons in 1950 to 117.4 m. metric tons in 1960, to 163 m. metric tons in 1965, and to 175.7 m. metric tons in 1966. [Unctad, *op. cit.*, p. 36].

The Suez Canal Company, which operated the Canal, was registered in Egypt as an Egyptian joint-stock company, but its administrative head office was in Paris. The Canal Company, though registered as a foreign company, was to be «governed by the principles common to joint stock companies approved by the French Government and with its legal domicile at its administrative headquarters in Paris,» and in accordance with the French Code of Commerce [Farnie, *op. cit.*, pp. 53, 71] The operational language was French, management was largely European, and so was the legal framework within which it operated. The Board of Directors, before nationalization in 1956, included representatives of France, Great Britain, the Netherlands, Egypt and the United States. Egypt's representation seemed to be a matter of courtesy, with only two members out of thirty two; two more members were added in 1949. Egypt, however, had a large representation in the form of workers, as distinguished from management and white-collar employees among whom the number of Egyptians was relatively small. The question of staff nationality apparently did not become an issue until 1936. According to the Anglo-Egyptian Treaty of that year, a «gradual integration of Egyptian employees into the Company» would be pursued so that the percentage of Egyptians would reach 33 percent of the total by 1958. However, by 1948 the employment percentage of Egyptians was only 27 percent of the total, apparently with hardly any of them in management. [Compagnie Universelle, *op. cit.*, pp. 234]

Employment by the Canal Company was lucrative. The staff benefits were unheard of in Egypt and were highly competitive with the best in Europe, especially if family and travel allowances, paid vacations, bonuses and retirement pensions were taken into consideration. To illustrate, in addition to rent, residence, and family allowances, the staff received a cost of living bonus amounting to more than 110 percent of the salary and 150 percent of the family allowance. All personnel received annual profit-sharing bonuses, about one month's salary for bachelors and two months' salary for married people. For those with long-service periods, the bonus could reach 50-60 percent of the

annual salary. The workers, mostly Egyptian, also received special benefits but on a much more modest scale, since their benefits were governed by terms established by the Egyptian government. Finally, all employees and workers enjoyed paid holidays of varying durations according to duty and rank. [Compagnie Universelle, *op. cit.*, pp. 24-5]

The Company was established as a concession for 99 years. According to the Company's Statutes, Egypt was to receive 15 percent of the profits. However, for unexplained reasons, the Egyptian Government had to forego a part of that share, eventually receiving only 7 percent of the gross profits. Other benefits accruing to Egypt included, according to the Company, various free public services rendered by the Company, fresh water from the Nile to the Isthmus of Suez, and electricity to Port Fuad and Port Said. The Company built roads and the Ismailia-Port Said railway. Other benefits accrued from forward and backward linkages generated by Company operations, including expansion of cultivation, construction projects, and social services, in addition to the housing projects undertaken by the Company. [*Ibid.*, pp. 68-72]

Though the Suez Canal Company was established as an Egyptian company, from the beginning it was conceived as an international company. According to the text of the Firman of Concession issued in 1854 by the Khedive of Egypt, the Canal was to be open to all nations, at all times, under Egyptian protection. The Egyptian government was to appoint the director of the Company. At the same time the government of Egypt was to put at the disposal of the Company the land and other facilities needed for construction of the Canal. These principles were reaffirmed in the Charter of Concession and Book of Charges issued by the Khedive in 1856. In addition to the above, the Company, whose headquarters might be out of Egypt would appoint a special representative to sit in Alexandria in order to stay in direct contact with the Egyptian government, while an Egyptian government representative would sit in Paris to keep an eye on the Company's operations. Freedom of travel through the Canal was once again promised by the Khedive whether in peace or in war-time. These principles were formalized in the 1888 Convention which brought about a more radical change. The 1888 Convention was signed at Constantinople by Britain, Germany, Austria-Hungary, Spain, France, Italy, the Netherlands and Turkey, Egypt being conspicuously absent. Apparently Egypt did not have to co-sign because it was formally under the suzerainty of Turkey and because it had lost its independence to Britain which had occupied parts of Egypt since 1882. The Convention focused on two points of relevance in this context. First, it reaffirmed that the Canal would be open to all nations in war and in peace, but only as a passage way and not for military activity or belligerence. Second, the Convention made enforcement of neutrality of the Canal the responsibility of Egypt and Turkey but also of the signatories of the Convention, led by Britain. Otherwise the status of the Canal did not change because of the Convention. It may be noted that the Convention simply formalized what had already become common practice. Britain had troops in the Canal area with full control of defence of the Canal.

British usurpation of authority in Egypt, especially in the Canal zone, was continued even after the nominal independence of Egypt in 1922. British influence was reaffirmed again and strengthened by the 1936 Anglo-Egyptian Treaty of Alliance. The Treaty institutionalized the placement of British troops in Egypt, including the Canal zone, and obligated Egypt to provide facilities and accommodation for the troops. The language of the Treaty, however, was expressive and indicative of the usurpation of power by Britain and its loss by Egypt until nationalization of the Canal in 1956. Until then the administrative headquarters were in Paris and the language of company operations was French, and so was its capital, personnel, technology and business ethos. [Schonfield, *op. cit.* Appendices A, B, and C, pp. 146-166]

The Canal as a European Network.

So far we have presented indications of the significance of the Canal to Europe such that we can assert that the Canal was (and is) a European rather than an Egyptian or Middle Eastern network. Whether in financing, equity ownership, management, administration, profit accrual and disposition or Canal usage and physical control, the Canal seems to have always been European. Most important of all, the Canal has always been utilized mostly by Europeans. The Canal facilitated European trade, enhanced contacts between the European mother countries and their colonies, and enriched the share owners by its high profitability. The Canal also opened up new frontiers for economic, political and social expansion by the Europeans beyond their own frontiers or the frontiers of existing colonies. It probably facilitated, if not encouraged, what has been called the New Imperialism of the late XIXth century, as illustrated by Figure 1.

As Figure 1 shows, territorial expansion in Africa was virtually completed in the last quarter of the XIXth century. The penetration was primarily by Britain, France, Germany, Spain, Portugal, Italy, Austria-Hungary and Belgium. Expansion in Asia also involved the Netherlands. These countries dominated vast territories as colonies or as spheres of influence, often many times larger than their own. For example, in addition to its new colonies in Africa, Britain acquired no less than 14 new colonies in Asia between 1874 and 1898. While the Canal cannot be held responsible for the New Imperialism, its function as part of the European network no doubt facilitated the expansion and enhanced it by raising expectations of high economic and political rewards from the colonies.

That the Canal was part of a network may be illustrated by looking into British designs for its overseas operations, including guaranteed access to its colony, India, at the lowest possible cost.

«Utilizing her naval superiority, she proceeded to appropriate all the important strategic posts along the routes of communication connecting the Atlantic with the Indian Ocean. Thus she acquired Cape Colony from the Dutch in 1806, giving her command of the Cape route. Gibraltar, the key to the Mediterranean, was taken in 1704; Malta in 1800 and Cyprus in 1878. By her acquisition of Aden (1839), Perim (1847), Northern Somaliland (1884-1886), Socotra (1886), she turned the Red Sea into a 'British lake'. Egypt, the only remaining link in the long chain, was also drawn into the British orbit, thanks, ironically enough, to a French promoter and an Egyptian patriot - to de Lesseps and Colonel Arabi.» * [Hallberg, Charles W., *The Suez Canal*, New York: Columbia University, 1931, p. 310]

But France was also interested in expanding its network, and so were Germany and the Netherlands. The Suez Canal was both a facilitator and an excuse for these countries to spread their wings by domination, colonization, or at least by increasing their economic and political influence in Africa and Asia.

The Canal also had an impact on technology, probably just as much as it benefited from new technologies. New ships were built to take advantage of the new waterway, with limited tonnage to fit the clearance depth of the Canal. The new ships utilized compound steam engines in order to reduce the need for frequent refuelling and to allow navigation through the Canal in all weather situations. Once Britain was convinced that the Canal was to be built, it admitted that the Canal would be more efficient than the Euphrates Valley Railway it had contemplated. It would also be more efficient than a Suez-Aden railway and an Alexandria-Suez railway.

However, the Canal was complemented by the expansion of other railways and cable telegraph networks. Aden became a cable station between Suez and India. Telegraph companies laid cable networks from Malta to Alexandria, and from Malta to Gibraltar to Falmouth, from Singapore to Hong Kong and Shanghai, and from Singapore to Batavia and Port Darwin. Cables also were laid to connect the Canal with the Russian cable system. Railways were

completed between Calcutta and Bombay and between Berlin and Baghdad in this period. Again the Canal cannot be given full credit for stimulating these expansions. However, the fact that all these networks were created during the same period, mostly by European companies, and were used mainly by Europeans does suggest strongly that the Suez Canal was a part of this European network-building endeavour which connected Europe with its former and new dominions.

A different indication of the Canal's European character is its limited and sometimes negative impact on Egypt and the Middle East. Though Egypt benefited from the Canal, especially by earning rents, the negative effects were considerable. It surrendered thousands of hectares of land to the Company, lost thousands of workers during construction, became a target of occupation and influence by European powers, and subsequently fell prey to occupation. Egypt barely had any significant economic development linkages as a result of the Canal, while it had to surrender a large part of its sovereignty over the Canal area. Instead of integrating or unifying the Egyptian economic entity, the Canal created a duality by establishing a modern enclave within a highly underdeveloped economy. Little of the Company's profits were reinvested in Egypt. Egypt barely gained any benefits from the Canal compared with the costs it suffered in the meantime, such as the loss of life of workers and imposition of forced labour to build the Canal. Even the rent agreed upon, 15 percent of the net profits, was soon reduced to 7 percent and Egypt could do nothing about it. Finally, it is most likely that the establishment of European hegemony over Egypt and the Canal was a major step toward defeating Turkey in World War I, appropriating its dominions in the Middle East and dismembering them into many separate economic and political entities, subject to diverse influences of western powers. All this suggests that the Canal was built by Europeans for Europe, not for Egypt, Turkey, or the Middle East. It was to be a European network and so it stayed even after nationalization. As already noted, Europe's share of tonnage passing through the Canal continued to be almost two thirds of all traffic passing through the Canal, and so did its share of the social savings on transport accruing because of the Canal.

Conclusions.

Several preliminary observations may be made:

1) Europe's economic development and growth in the latter part of the XIXth century was directly connected with network projects in building transportation, communications, and finance (though little has been said about finance in this paper.)

2) The network building was not confined to the territorial or geographic boundaries of the individual European countries or to Europe as a whole. The network's extent, functions, and capacities were determined by the national

interests of the individual countries and their competitive abilities in politics, economics and technology.

3) The Suez Canal was an integral part of the European network, even though it occupied a part of the Egyptian territory. Its European character is indicated by its legal, administrative, managerial and ownership characteristics. The ownership, financing, and operations of the Canal, as well as the overseeing of its operations, were European until its nationalization.

4) The economic effects of the Canal are demonstrably significant, as shown by estimates of the returns on investment and of the social savings on transportation costs reflected by the reduction of distance between Europe and its trade destinations.

5) Finally, while it is tempting to suggest that the Canal connected or integrated East and West, it is more accurate to suggest that it connected West with West (dominions), and helped to disintegrate large parts of Africa and Asia. It helped to create modern European enclaves within Eastern cultural and social environments of which they never became a part. Until its nationalization and until independence of the European colonies in Africa and Asia, the Canal was a European, not an Egyptian or a global network.

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