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Issawi's Notion of Egypt's 'Lop-sided development' Revisited

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In Memory of Charles Issawi:

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Charles Issawi: "…my favorite definition of an economist is one who, when asked 'How is your spouse?' replies 'Compared to what?'" [1]

1. Introduction: Issawi Becomes a Development Economist

Charles Issawi, the man who I have also thought of as the father of Middle East economic history, was born in Cairo in 1916. He was educated in Egypt and Sudan and then at Magdalen College, Oxford where he read for a degree in PPE (Politics/Philosophy/Economics). This was the mid-1930s and the economic part of the course still concentrated on the works of the neo-classical economists such as Marshall and Pigou. The theories of John Maynard Keynes were not well understood at the time and, like most of his generation, Issawi only made their acquaintance after he had left the university.[2]

Issawi returned to Egypt in 1937 to take up a post in the Ministry of Finance before transferring to the privately-owned National Bank of Egypt where he soon became head of a small economics research unit. There he got to know most of the other Egyptian economists and economic historians - for example Ali al-Giritli, Ahmad al-Hitta and Muhammad Anis - many of whom had also been trained in Britain and whose work he was the first to bring to the attention of a Western audience.

It was while he was employed at the National Bank that Issawi wrote the draft of what became Egypt: An Economic and Social Analysis, something he later described as an 'angry and intemperate work' which was finally banned in Egypt in 1950.[3] Be that as it may, much of what he wrote there now seems no more than perfectly fair comment. He calls attention to the 'marked economic inequality' which 'stares' at the traveler and 'scars' the center of Cairo.[4] He describes the 'reactionary' landowning elite as having 'all the defects of a privileged class unredeemed by any of the virtues of a ruling class'.[5] He calls for the break-up of the large estates into four feddan plots as the only way to create a larger internal market for Egyptian industry'.[6] And, in a passage which foreshadows some of his later arguments in his 'Study in lop-sided development' he argues that all legislation has 'shown a marked bias in favour of the landed interests'.[7]

Charles Issawi left Egypt in 1943 to take up a post as a Professor of Political Science at the American University at Beirut. There he soon began to take an active interest in the question of Palestine, helping to provide evidence on the Palestinian economy before the Anglo-American Commission of Inquiry in 1946 and then working for the Arab Office in its efforts to present the Palestinian case in the United States in 1947.[8]

Wanting to stay in North America, Issawi entered the newly-established United Nations as a program officer dealing with Middle East development, 1948-1955. He described some of his somewhat comical attempts to obtain - and sometimes actually to invent - statistics concerning the national incomes and other important indexes for individual Middle Eastern countries in the first issue of MEEA Newsletter. In 1951 he also started teaching a course in Middle East economics at Columbia before moving there full time in 1955. He continued to teach contemporary economic issues until the late 1950s before coming to the conclusion that it was no longer possible to keep up with events in the area as a whole while living outside. The result was a decision to switch to the study of economic history, a choice, he said, which was made easier for him by the fact that his approach had always been 'historical rather than mathematical'.[9] The decision to switch may also have had something to do with his return to Egypt in 1958 to undertake fresh research for what was to become his third study of Egyptian development, Egypt in Revolution (1963). Certain comments in this latter work suggest that he was uncomfortable during his time there and not at all happy with the Nasser regime's sharp turn towards planning and state control, as well as what he described as its policy of 'ill-conceived nationalisations'.[10]

Issawi gave his first course on the economic history of the Arab world at about this same time. In it he aimed to combine a solid core of data with the study of questions connected with the analysis of problems and theories.[11] As he told Nancy Gallagher, he

had now begun to think of himself as a 'development economist' concerned with comparisons, patterns and trends.[12] It was absurd, he said, to expect the Middle East to follow a European or any other pattern; but not absurd to ask questions arising from the study of other cultures. As to theory, his was the 'mainstream development' theory of (Colin) Clark, Kuznets, Hicks, Harrod, Nurkse, Lewis, Hirschman and others based on the centrality of markets and market mechanisms.[13] His main focus was on the impact of the integration of the Middle East into the world economy and on the reasons for the region's 'historical backwardness' which he believed to be primarily 'internal' but also affected by European competition in the eighteenth century and imperialism in the nineteenth.[14] As for dependency theory, this simply did not fit.[15]

2. 'Lop-sided development'

It was during his move towards economic history that Issawi wrote his seminal article 'Egypt since 1800: A study in lop-sided development'.[16] In what follows I will give a brief description of his main arguments concerning Egypt's economic trajectory since 1800 before going on to examine the ways in which they have, and have not, stood the test of time, particularly in the light of more recent research.

The main influence on Issawi's approach to Egyptian development is clearly the contemporary work then being undertaken on the notion of the 'export sector'.[17] This he sees as providing a link between both internalist and externalist theories of economic backwardness. Foreign trade, he argues, is a necessary but not a sufficient condition for development. What it requires is a link with the rest of the economy to allow 'some form of multiplier effect'. In the case of Egypt, the transition to an export economy was 'very easy'. But passage to a more complex one was 'greatly delayed', resulting in the accumulation of many difficulties, notably more rapid population growth. In his characterization, the period of the huge increase in agricultural exports - notably long staple cotton - ended with World War One. After that there could be very little expansion in the cultivated area. Meanwhile, industrialization did not start until the 1930s. As a result, per capita income, which had been rising until World War One had fallen ever since.

What is Issawi's explanation for this unhappy turn of events? In his argument, the period of rapid growth in exports before 1914 did not lead to a parallel growth in other sectors because of insufficient investment. Income earned abroad was either being spent abroad or simply consumed. Then when investments in alternative economic activity - notably industry - did begin in the 1930s, the purchasing power of Egypt's exports was now stagnant while the need for imports to feed an expanding population continued to rise. Or to use one of Issawi's favorite metaphors: just when adequate transmission lines between export sector and rest of economy had finally been put in place, the engine that provided the original motive power showed signs of falling off while the 'auxiliary engines' (notable industry) were not 'sufficiently powerful to replace it'.

Such an approach obviously implies that what Issawi calls the shift towards a complex economy should have taken place before 1914. That it did not, is blamed on the fact that Egypt's late nineteenth century rulers - the Khedive Ismail, Lord Cromer and others - were 'blinded' to the fact that the revenues from agriculture were being dissipated in consumption, and that progress was being localized in the export sector and showed no sign of spreading elsewhere.

Several other points should also be noted. First, as Issawi correctly points out cotton yields peaked in 1897. Second, there is his belief that before 1914 Egyptians left business 'entirely to foreigners' who also dominated the export sector. Third, although Egyptian industry is described as growing 'rapidly' in 1930s, when the variety of its products also 'greatly increased', it was characterized by its international uncompetitiveness, its low productivity and its heavy dependence on imported raw materials. Taken altogether such points support his general conclusion that the price for the delayed transmission from an export to a complex economy was the creation of problems which, by the time he was writing were 'well-nigh insoluble by ordinary economic means'.

Reading Issawi's article at the beginning of my own research into the growth of Egypt's nineteenth century cotton economy, I too was impressed by the way it seemed to bridge the gap between internalist and external explanations, as well as by its apparent fit with the economic nationalist arguments then being used to justify both the revolution of 1952 and the switch to planning and state control in the later 1950s. Perhaps most the point, I found Issawi's stress on what did happen more convincing than those of writers who produced alternative explanations based on taking Egypt and its people to task for lacking something which they did not have or for not pursuing some alternative path.

Nevertheless, as I read more Egyptian economic history myself, I found that I had some quarrel with Issawi's arguments. It was clear to me that both Lord Cromer and Egyptian economic nationalists like Talaat Harb were well-aware of the need to diversify the economy well before 1914.[18] I also found myself in disagreement with the role assigned to Lord Cromer in stunting local industrialization via his imposition of an 8 percent counter-vailing duty on local factory-produced textiles.[19] And I was soon also to part company over Issawi's assumption that Muhammad Ali's factories could have led to a much earlier process of sustained industrialization.[20] Both points, however, remain controversial.[21] Now, more recently, I have come to realise more fully the significance of the economic crisis of 1907 and the negative impact this had on Egypt's investment climate even before capital imports came to a halt in 1914.

For the rest, most of my work has been more of an elaboration of Issawian themes rather than a direct challenge to them. I have drawn further attention to the deleterious impact of British irrigation policy.[22] I have also tried to explore some of the variables which might be used to explain Egypt's slow agricultural progress in the 1920s and 1930s, for example the significance of the introduction of lower-yielding strains of long-staple cotton.[23] And I have written of the impact of the British decision to freeze the initial land tax assessment for thirty years after the initial, province by province settlement, 1898-1912, hence depriving the treasury of any way of benefiting from the advance in the agricultural incomes of the large landowners.[24] What all this suggests, I think, is that Issawi was wrong to blame individuals for the failure to diversify when the value of cotton exports was high but right to see this as the result in large measure of the creation of a powerful structure dominated both by cotton and by large landowner interests which proved more difficult to alter than Issawi, for all his earlier dislike of landlord selfishness, seemed to allow.

3. Other Views

By and large all the economists and economic historians who have written about Egypt support Issawi's general argument that per capita income did not risen from before World War One until a decade or so after World War Two, in spite of a few short term ups and downs. There is some disagreement about the exact periodisation, however, with Bent Hansen, for example, estimating that the advance in incomes came to an end in 1907 and Tarik Yousef making this 1914.[25] But all maintain that the subsequent stagnation constitutes the greatest indictment of Egypt's economic performance during this period.

There is also considerable agreement that a large part of the explanation lies in the creation of a powerful export sector without links to the rest of the economy and to the fact that what Issawi calls the 'revolution' in Egyptian agriculture at the end of the nineteenth century - Hansen writing later calls it a 'green revolution' - was bought at the expense of problems with drainage, cotton pests and the huge spread of bilharzia, some of which required large investments in the inter-war period to deal with, while others, like the debilitating effects of bilharzia, remain to this day.[26] Lastly, there is general agreement with Issawi that serious effort at industrialization did not begun until it was finally possible to provide tariff protection in 1930. And among most writers that the development of manufacturing was the answer to agriculture's difficulties even if, like Issawi, many were aware that it could not be a complete answer given Egypt's rapidly rising population, its lack of raw materials and the short-comings of its industrial labor force.

Where many writer's disagree, however, is how best to explain this unsatisfactory state of affairs: differing, inter alia, over the choice of variables and over what weight to give to each. There have also been fruitful attempts to extend the debate by introducing new factors in elaboration of Issawi's somewhat spare outline. Richards, for example, analyzed the impact of Egypt's system of land ownership on changes in agricultural technique, pointing to the intensification of a two year cotton rotation in the inter-war period and to the fact that this was more prevalent on small peasant holdings of 0-5 feddans than on the estates of 50 feddans and over. The fact that he continues the story through the land reforms of 1952 and onwards also gives him the possibility of comparing output and yields under two somewhat different systems of tenure and organization.[27] Nevertheless, even this promising approach soon reaches it limits due to the absence of accurate statistics about the such vital issues as the proportion of rented land, as opposed to that farmed by the owner-occupier, and the impact of the changes produced by the 1952 reform on agricultural output in general. Politics, as always had much to do with it. The original intention of the holders of the 1917 census to ask questions about rent and rental values was almost certainly abandoned on the grounds that it might incur too much landowner hostility.[28] While the lack of accurate statistics which would allow a proper evaluation of the impact of the 1952 reform must have much to do with the Nasser regime's unwillingness to submit one of its major social programs to detailed public scrutiny.[29]

Another provocative intervention came from Vitalis who made two essential points which can be used to amend the Issawi argument. The first is the challenge he poses to the binary opposition between native Egyptian and so-called 'foreign' businessmen. And the second, the significance of a narrow national market which, for many of the larger investment projects, only allowed one business combination to survive, thus encouraging the search for private monopolies, a trend already identified by al-Giritli some fifty years ago.[30]

Other important amendments and additions are on the way. Ellis Goldberg, in a soon-to-be-published manuscript, places major emphasis on the efforts of landowners and cotton exporters to defend the 'reputation' of Egyptian long- staple cotton, including the intensified use of child-labor at the expense of the spread of proper rural schooling.[31] This fits in well with the work done by the Harvard graduate student, Misako Ikeda, concerning the unwillingness/inability of Egypt's bureaucrats and parliamentarians to unify Egypt's bifurcated school system, one of the more pernicious legacies of Lord Cromer and the British.[32]

Lastly, there have been a number of suggestions as to policies which might have allowed Egypt to perform better. It has been clear for a long time that it was a mistake to try to base Egypt's modern textile industry on the use of the country's own high quality cotton rather than on cheaper, less fine, types imported from India. The reasons are, of course, clear. Imports of foreign cotton were forbidden after 1916 in an attempt to preserve the quality and later, the reputation, of the local strains.[33] More generally, the use of Egypt's own cotton can be seen as the basis of a partnership between Egypt's industrial and landed interests designed to encourage landholder investment in the Bank Misr's new mills. Nevertheless, Hansen is certainly right to point out that in terms of

comparative advantage and the possibilities for profitable export, concentration on cement and phosphates would have made a great deal more economic sense.[34]

Then there is Tarik Yousef's calculation that the elasticity of demand for Egyptian cotton was such that it commanded more power in international markets than Issawi and most others have believed.[35] Hence, in theory at least, it would have been possible to impose an export tariff that would have provided the government with valuable revenues to encourage economic diversification. But this, as Yousef also notes, would have been impossible for political reasons as it would obviously have run counter to the interests of both the Egyptian landlords who controlled parliament and the British textile importers.[36]

4. Pushing the Limits of Issawi's 'Lop-sided' Argument

All such amplifications or suggested alternatives are useful as far as they go. But in what remains of this paper I would like to probe more deeply into some of Issawi's still unchallenged propositions. I will introduce my remarks with what seems to me to be two central questions. First, did Egypt's economy perform badly in the inter-war period and, if so, compared with what? Issawi, as we have seen made the comparison - which seems to me to be the right one - between the pre- and post-World War I periods. Others, less happily in my opinion, have tried to compare the stagnation/retardation of the inter-war period with developments in other countries or groups of countries elsewhere.

All economists (including myself in all my earlier writings) seem to agree that the period, 1897-1907, needs to be seen as some sort of a bench-mark, the decade when the Egypt's agricultural sector produced its optimum, pre-revolutionary performance. Returning to the subject for the purposes of writing this paper, I now see that two vital introductory points need to be made here. The first concerns the use of statistics. Both 1897 and 1907 were census years, and so vital to the creation of even the most rudimentary national income figures necessary to calculate per capita income. This gives an air of spurious precision to the argument that 1907 - which was also a year of worldwide recession - marked the end of Egypt's agricultural revolution.

The second, more important, point concerns the proper evaluation of this same agricultural revolution which, so far as cotton yields are concerned, peaked in 1897. The immediate reasons for this are clear, though not often adequately taken on board. They involve the combined impact of the improvements in the system of irrigation north of Cairo and the best year for the prolific cotton strain, Mit Afifi, which had first come to prominence less than a decade before. The former produced not only more summer water but also distributed it from high-level canals which permitted a huge saving of time and labor that could be allocated to other agricultural tasks. This, combined with the use of Mit Afifi, produced average yields not reached again until the early 1940s. Meanwhile, the size of the crop was also affected positively by the concomitant large-scale shift from a three year to two year cotton rotation.

Such high levels of yields and of output proved, as we know, unsustainable. On the one hand, Mit Afifi yields inevitably declined and, after the first World War, it was almost totally replaced by less prolific strains like Sakel. On the other, the switch to a two year rotation and the provision of extra water were not only one-off events but had their own adverse knock-on effects in the form of over-watering, the rise in the water-table, salination, stepped up attacks by cotton pests and a general weakening of the strength of agricultural laborers due to the much more frequent incidence of bilharzia. Some of this damage could be repaired in the 1920s and 1930s by costly investment in better drains, research into new strains, as well as by the greater use of chemical fertilizer. But others like increased infestation and the ravages of bilharzia could not. The question then arises: to what extent did the crops achieved round about the turn of the century represent Egypt's true potential, as opposed to a temporary accident due to unrepeatable circumstances which also contained the seeds of its own undoing? It should have become clear that I am now much more strongly in favor of the second part of this proposition. As in the case of many other 'green' revolutions, its initial results proved a false dawn after which it took many years to be able to determine what a sustainable level of output really was.

Issawi's comparison between Egypt's pre- and post-1914-1918 performance is one thing, comparisons between Egypt's inter-war 'retardation' and those of other countries in the world during the same period quite another. To what other national experience can it reasonably be compared? Economists and economic historians, so it seems to me, are often quite cavalier in what they compare with what, all to easily forgetting the old philosophical warning about 'apples and oranges'. Hence it does not seem helpful to compare Egypt's performance, as Yousef does, with that of other primary exporters, as what he calls an 'appropriate benchmark' in an age when 'the forces of openness, capital flows and export growth were operating on a global scale'.[37] For one thing, many other economies with large agricultural sectors performed equally badly in these two difficult decades. For another, the differences in performance, even between quite close neighbors, remains not well understood. To look only across the Eastern Mediterranean, from Egypt to the Balkans, where 65 percent of the population were still employed in agriculture, some countries, like Yugoslavia, enjoyed a modest increase in per capital income while others, like Bulgaria, saw it actually decline.[38] Hence, if cross country comparisons are to be used, I would suggest that they focus either on particular features of the inter- war experience - for example, Yousef's useful suggestion that Egypt, like Argentina, Australia and Canada, might have been suffering from the fact that their capital and commodity markets were closely linked to those of a battered post-1918 Britain - or on regions with a roughly similar ecology, crop-pattern, population growth and system of irrigation like the Punjab.[39]

A last word about what I would call 'proper' and 'improper' comparison. Just as when the World Bank now castigates Egypt for not being more like South Korea, historical comparisons between Egypt and a country (or countries) with a very dissimilar institutional and economic structure only encourage a search for some magical formula - perhaps more capital, perhaps better schools, perhaps more farsighted policies - which Egypt did not, and could not, have had. From an Issawian perspective, explanations for Egyptian backwardness in terms of what it so obviously lacked is like crying for the moon. The structure he describes is such a tight one, and its domination by a large landowner interest so over-determined, that there seems little point in trying to suggest, ex post facto, ways in which it could have performed any differently or any better.

This not to say, however, that we should stop all research. There are still many dark areas in Issawi's picture which could do with some light, the more so as some of them relate to questions to which Egypt has yet to find an answer.

It was Charles Issawi himself who raised the question of what was the optimal use of the country's finite amount of rich, fertile soil.[40] Some mix between food crops, cash crops and horticulture still seems the best answer. But how should they be apportioned? This then leads on to a second, still unanswered, question: what is the optimal size of the agricultural units necessary to produce such a mix? Perhaps if we were able to answer this question historically it might still have some relevance for the present day. It is as least a useful counter-factual to ask whether a different pattern of land holding, and a somewhat different mix of crops might not have stood Egypt in better stead in the first half of the twentieth century. Just as we might also ask whether a better conceived land reform might have been much more helpful in the second. Answers, both historic and contemporary, should be based on a break-down of Egypt's cultivated land into different regions of different types, rather than treating it all as homogenous which still seems to remain the preferred way.

As for industry, the search for comparative advantage still remain as wide open as when Issawi first touched on the issue nearly sixty years ago, now made even more difficult to evaluate by the wholesale distortion of the cost structure by the Nasserite statist experiment.[41] It would seem to me that, from a historical point of view, chemicals and pharmaceuticals still remain the strong suit, just as they were for Mabro and Radwan writing in mid-1970s.[42] Beginning with cotton-seed oil and alcohol derived from sugar there was a steady development throughout the twentieth century which, though little written about, appears to have defied many of the problems which assailed other parts of the industrial sector.

My brief conclusion is that Charles Issawi's work can still be mined for useful insights into both past and present. And that, in his 'Lop-sided development' in particular, he sets out a structured explanation for Egypt's twentieth century economic performance which, though in need of some amendment, still remains an essential starting point when thinking about the country's economic history.

ENDNOTES

[1] Nancy Gallagher, ed., Approaches to the History of the Middle East: Interviews with Leading Middle East Historians (Reading, UK: Ithaca Press, 1994), 58.

[2] Thomas Naff, ed., Paths to the Middle East: Ten Scholars Look Back (Albany: State University of New York Press, 1993), 145.

[3] Ibid., 147.

[4] Egypt: An Economic and Social Analysis, 147.

[5] Ibid., 149.

[6] Ibid. 197.

[7] Ibid., 173-4.

[8] Gallagher, Approaches, 55.

[9] Naff, Paths, 163.

[10] Egypt in Revolution, 48.

[11] Naff, Paths, 166-7.

[12] Gallagher, Approaches, 59.

[13] Naff, Paths, 166-7.

[14] Ibid., 168.

[15] Ibid., 172.

[16] The Journal of Economic History, XXI/1 (March 1961), 1-25.

[17] For example, Jonathan V. Levin, The Export-Economies: Their Pattern of Development in Historical Perspective (Cambridge, MA: Harvard UP 1960).

[18] Cotton and the Egyptian Economy- 1820-1914: A Study in Trade and Development (Oxford: Clarendon Press, 1969), 341-2, 348-9.

[19] E. R. J. Owen, 'Lord Cromer and the development of Egyptian industry, 1883- 1907', Middle Eastern Studies, 2/4 (July 1966, 282-301.

[20] The Middle East in the World Economy, 1800-1914 (London: Methuen and Co., 1981), 69-76.

[21] For a contrary view see, Afaf Lutfi al-Sayyid Marsot, Egypt in the Reign of Muhammad Ali (Cambridge: Cambridge UP, 1984), 162-85, 247-8.

[22] 'Agricultural production in historical perspective: A case study of the period 1890-1939' in P. J. Vatikiotis, ed., Egypt Since the Revolution (London: George Allen and Unwin, 1968), 50-65.

[23] Ibid., 61-2.

[24] 'Large landowners, agricultural progress and the state in Egypt, 1800-1970: An overview', in Alan Richards, ed., Food, States and Peasants: Analyses of the Agrarian Question in the Middle East (Boulder, CO: Westview, 1986), 69 95.

[25] Bent Hansen, Turkey and Egypt: The Political Economy of Poverty and Growth (Oxford: Oxford UP, 1991), 45; Tarik M. Yousef, 'Egypt in the world economy, 1885-1950: A first set of GNP estimates', xerox, 17.

[26] For example, Sanmir Radwan, Capital Formation in Egyptian Industry and Agriculture 1882-1967 (London: Ithaca Press, 1974), 168, 233; Robert Mabro and Samir Radwan, The Industrialization of Egypt 1939-1973: Policy and Performance (Oxford: Clarendon Press, 1976), 19-26; Alan Richards, Egypt's Agricultural Development, 1800-1980: Technical and Social Change (Boulder, CO: Westview Press, 1982),135,162-3: Robert L. Tignor, State, Private Enterprise and Economic Change in Egypt, 1918-1952 (Princeton, NJ: Princeton UP, 1984), 15-18; Hansen, Egypt and Turkey, 39.

[27] Egypt's Agricultural Development, 111-130,142-158.

[2 8] Roger Owen, 'The population census of 1917 and its relationship to Egypt's three 19th century statistical regimes', The Journal of Historical Sociology, 9/4 (December 1996), 463-4.

[29] For the difficulty in obtaining accurate statistics see, Gabriel Saab, The Egyptian Agrarian Reform 1952-1962 (London: Oxford UP, 1967), viii-x.

[30] Robert Vitalis, When Capitalists Collide: Business Conflict and the End of Empire in Egypt (Berkeley: University of California Press, 1995), chpt. 1: Ali A. Fl-Giritl, 'The structure of industry in modern Egypt', L'Ehytpe Contemporaine, 241-2 (November/December, 1947).

[31] Not the Gift of Nature Alone: Regulation, Reputation and Growth in Early Twentieth Century Egypt (forthcoming).

[32] 'Socio-poltical debates in late parliamentary Egypt, 1944-1952', Harvard Ph. D (1998), Pt. 2.

[33] Goldberg, Not the Gift of Nature Alone.

[34] Egypt and Turkey, 89.

[35] Tarik M. Yousef, 'The political economy of interwar Egyptian cotton policy', Explorations in Economic History, 37, 301-325.

[36] Ibid., 319-20.

[37] 'Deglobalization, divergence and inter-war Egypt', xerox 4-5.

[38] M. C. Kaser and P. A. Radice, The Economic History of Eastern Europe: 1919- I975, I, Economic Structure and Performance Between the Two World Wars (Oxford: Clarendon Press, 1985), Table 8.61.

[39] 'Deglobalization, divergence and inter-war Egypt', 6-7; Dharm Narain, The Impact of Price Movements on Areas Under Selected crops in India 1900-1939 (Cambridge: Cambridge UP 1965), 51-6; S. Sivasubramonian, The National Income of India in the Twentieth Century (New Delhi: Oxford UP, 2000), 485.

[40] Egypt: An Economic and Social Analysis, 71-2.

[41] Ibid., 91-3; Heba Handoussa, 'Reform policies for Egypt's manufacturing sector' in Heba Handoussa and Gillian Potter, eds., Employment and Structural Adjustment: Egypt in the 1990s (Cairo: American University Press, 1991).

[42] Industrialization of Egypt, 105.