
INDUSTRIALIZATION IN SOUTH AFRICA: A HISTORIOGRAPHICAL DEBATE? ¹

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Opsomming

Industrialisasie as 'n ekonomiese verskynsel het min aandag van historici ontvang. Die meeste publikasies van historici handel oor die sosiale en politieke implikasies van die verskynsel. Hierdie artikel ontleed die werk van ekonomiese historici in die eerste plek, dan die werk van ekonome en daarna revisionistiese historici. Daar is groot ooreenstemming oor die koste van aanvanklike industriële proteksionisme, asook die aanvanklike nut daarvan ten einde ekonomiese groei te stimuleer. Ekonome het indringend gedebateer oor die owerheid se desentralisasieprogram en veral die politieke rationaal daaragter bevrage. Die revisionistiese publikasies oor industrialisasie handel hoofsaaklik oor die idee dat politieke beleidsrigtings geïmplementeer is om kapitalistiese ekonomiese ontwikkeling te verseker. Die skrywer beweer dat min werklike debat tussen die eerste groepe skrywers oor industrialisasie en laasgenoemde revisionistiese historici plaasvind.

"The aim of research is not to twist facts to prove a theory, but rather to adapt the theory to provide a better account of the facts."

Carlo M Cipolla²

Industrialization is primarily a macro-economic phenomenon, comprising of various micro-economic components. Therefore, the study of industrial history includes a macro- as well as a micro-approach. The study of the broader phenomenon of industrialization since the eighteenth century is part of the scope of economic history, which is essentially a macro-economic discipline. The study of the growth of specific industries or industrial enterprises is then the micro-economic discipline of business history. In South African historiography thus far, little has been researched and published on the macro-economic and micro-economic aspects of industrialization as such. There are few economic historians who write about industrial development. It seems, however, that historians with training in social and political history, in particular, have attempted to describe and explain the social phenomena of industrialization. In

¹ This paper has been reprinted from the original article in Afrikaans in *Historia*, 43, 1 (May 1998). With thanks to Johann Tempelhoff, editor.

² C.M. Cipolla, *Between History and Economics. An introduction to Economic History* (Oxford, 1991), p.17.

the writing of the South African history of industrialization, the emphasis was rather on the relationship between industrialization as a definite phase of capitalist development and the specific political model of the country. In 1989, Christopher Saunders pointed out that the increased attention that had been paid to industrialization since 1970 had very little to do with the investigation into industrialization as an economic phenomenon or any in-depth research on industrialization as such. Most of the neo-Marxist writers since the early 1970s were sociologists who had a political-economy approach. This means that a specific paradigm pertaining to the relation between politics and the economy was accepted and that they from that perspective then considered the impact of industrialization. Few of the neo-Marxist or revisionist writers had advanced training in economics, and most of those who were appointed to Departments of Economic History wrote social history, not economic history.³ A social history of industrialization does not say much about industrialization as an economic phenomenon as such, even though it might refer to the social impact on people, urbanization as well as religious and cultural changes, etc. The revisionist writers had a specific political agenda since the early seventies, namely to point out the functionality of capitalism as a specific economic system for the political model of racial segregation in South Africa. In that process, the political economy of industrialization was written according to the abstract value theory, and not as the economic history of industrialization in South Africa.

This article focuses on what was in fact written about industrialization in South Africa. Firstly, it looks at general economic history about industrialization, then focuses on publications about industrialization in economic journals, and lastly it considers publications about industrialization by revisionist writers. Finally, it scrutinizes the question of whether or not South African historians are engaged in a historiographical debate about industrialization.

1. Economic historiography on industrialization in South Africa

In South African historiography, there are three general works of economic history that also look at industrialization. There is firstly the work of economist Jill Nattrass, *The South African economy. Its growth and change*. Although Nattrass has focused on the structural changes in the South African economy since 1860, there is a thorough overview of the course of industrialization in South Africa. Nattrass points out that the mining-oriented economy of South Africa could easily have been trapped in that phase of development if the control of foreign capital over the industry had not gradually been forced by strong local politics to invest part of its surpluses locally. Only when the surpluses of the primary production are utilized locally can an economy develop to the next stage of secondary industries.⁴ The first attempt by economic historians to write an economic history of South Africa was the publication under the editorship of F.L. Coleman, *Economic history of South Africa*. The two chapters on industrial

³ C. Saunders, "The historiography of industrialization: Some reflections". Paper presented at conference of the South African Historical Association, Pietermaritzburg, 1989.

⁴ J. Nattrass, *South African economy. Its growth and change* (London, 1981), pp. 162-163.

development by Antony Lumby focus on the foundations of industrialization in South Africa before 1924, but then consider the conscious policy of industrialization through protectionist policies, which is then seen as the turning-point of local industrial development. Lumby points to the specific role of gold: on the one hand, the gold standard crisis of 1931-32 seriously hampered the local industries, and on the other hand the reluctant renunciation thereof and the accompanying devaluation of the South African Pound in December 1932 provided the breakthrough for renewed industrial prosperity.⁵

The third and most comprehensive economic history of South Africa appeared only in 1992. It is the work of Stuart Jones and André Müller, *The South African Economy, 1910-1990*.⁶ This work analyses industrialization in three phases, namely 1910-1933, 1933-1961 and post-1961. The writers point out that before the country became a Union, secondary industrial development had already taken place, which can be divided into three clear categories, namely 1) industries that did not use modern technology to produce competitively because of the limited local market (e.g., the explosives industry); 2) industries that enjoyed a high degree of natural protection because of the high transport, insurance and handling costs of imports; and 3) industries that had a competitive edge because of the availability of raw materials. The writers are also of the opinion that the 1930s were the years in which industrial transformation really began to take place in South Africa. Owing to devaluation, the price of gold increased, making the exploitation of low-grade ore economically viable again. The upsurge in the gold-mining industry resulted in a multiplier effect in the industrial sector – especially in the construction and local manufacturing industries.⁷

In fact, at the time of the true industrial boom, a few works that highlighted the upsurge of industrialization were published, e.g. M.H. de Kock, *Selected subjects in Economic History*,⁸ as well as his *The economic development of South Africa*,⁹ D.M. Goodfellow: *A modern Economic History of South Africa*¹⁰ and G. Bosman, *The industrialization of South Africa*.¹¹

⁵ A. Lumby, "Industrial development prior to the Second World War", in F.L. Coleman, *Economic History of South Africa* (Pretoria, 1983) pp.204 – 220; L. Katzen, *Gold and the South African economy* (Cape Town, 1964).

⁶ Stewart Jones and André Müller, *The South African economy, 1910-1990* (London, 1992).

⁷ Jones and Müller, *South African economy*, pp. 64-65.

⁸ Cape Town, 1924.

⁹ Westminster, 1935.

¹⁰ London, 1931.

¹¹ Middelburg, 1938.

All these works emphasize the structural change in the South Africa economy since the last quarter of the nineteenth century through the development of the mining industry. There are different opinions about when exactly industrialization began in South Africa – after 1914, after the 1920s, after 1924, during the 1930s and in the early 1940s – but these differences are rather related to the criteria that were utilized. According to A.N. Pelzer, the first industries were found before 1910 already. The so-called ‘revolution’ in local industrialization was identified only after 1924.¹² However, the publications of these older writers appeared too early to take into account the peak of South African industrialization after World War II. As early as the 1940s and 1950s, C.W. de Kiewiet, *A History of South Africa, Social and Economic*¹³ and H.M. Robertson, *South Africa Economic and Political Aspects*¹⁴ declared the irreversibility of the process of industrialization in South Africa as historically given. All of these early writers consider industrialization as a sign of progress, development and the greater maturation of the South African economy, in that the phases of primary production were followed by secondary economic activity.¹⁵ These writers undoubtedly form part of the tradition of the subjective preference theory, which allocates a central role to the individual and his decision-making – thereby regarding the development of capitalism from the agrarian and mining phases to industrialization as progress.

In 1964, Hobart Houghton wrote *The South African Economy*, in which the state of industrial development and, in particular, the manufacturing industry are analysed.¹⁶ Houghton placed particular emphasis on the role of the policy of industrial protection in the establishment of the booming local manufacturing industry after 1924. The work by A. Norval, *A quarter of a century of industrial progress in South Africa* looked more systematically at the growth in specific industrial sectors and a number of industries, especially since World War II.¹⁷ As an economist, Norval looked at the growth of the industries in the totality of the South African economy. His work is valuable because it offers statistical information from which historians can make deductions and draw conclusions. Norval’s work points to the structural changes in South Africa’s manufacturing industries up to the early sixties. The work of Jones and Müller as well

¹² A.N. Pelzer, “Die vroegste pogings tot industrialisasie in die Suid-Afrikaanse Republiek”, *Historia*, 14, 4 (1969).

¹³ London, 1940.

¹⁴ Durham, 1957.

¹⁵ De Kiewiet refers to the growth of industries as a “...sign of greater maturity. Political self-direction carried with it the plain obligation of greater economic self-sufficiency ... Economic independence made political power independence more real. Settlers became more than colonials working in field and forest for a distant metropolis; they became citizens of a modern state marked by a diversity of economic undertakings”: De Kiewiet, *History of South Africa*, pp. 261-262.

¹⁶ Cape Town, 1964.

¹⁷ Cape Town, 1962.

as the chapters by Lumby in Coleman discuss, in full, the changes in the three categories of production (referred to earlier) until manufacturing in the metallurgic and engineering industries became more important in the post-war period. The food, liquor and clothing industries were already prominent manufacturing industries by 1961, and from 1961 the writers point out the growth in the manufacturing of intermediate goods. Two extensive articles in the *South African Journal of Economics* by S.J. Kleu¹⁸ and G. Marais¹⁹ supplement the said works by pointing out the increasing role of industrial production as a percentage of South Africa's GDP (especially the growth thereof until it made a greater contribution to the GDP for the first time in 1965 as the joint contribution of the agricultural and mining sectors) and the increase in product exports as a percentage of the industrial exports and the total exports. These writers (who are not historians, but economists) focus on the economic processes of increasing and declining local and foreign demands/markets (in view of the two world wars), foreign trade and the growth of local technology as processes that influenced South Africa's industrialization since the early twentieth century and until long after 1970.

The government's policy of industrial protectionism as a strategy for industrialization was given only indirect attention. Lumby does not deny the importance of the moderate tariff protection of 1915/16 for industrialization, but he points out that the first stimulus for industrialization came with World War I: competitive imports were eliminated, thereby giving local manufacturers the opportunity to supply that demand while overseas suppliers were caught up in the war.²⁰ Those who wrote about the policy of tariff protection, initially about income considerations, in particular, and later about the conscious policy of the protection of local industries by means of tariffs and a strategy of the replacement of imports after 1924, pointed to the occurrence of similar policies in other industrial countries, but still considered this an encroachment on the sovereignty of the market and an acceptance that a laissez-faire economy based on the sustained growth of the agricultural and mining industries had to be suspended.²¹

¹⁸ S.J. Kleu, "Strukturele aspekte van die nywerheidsontwikkeling in Suid-Afrika", *South African Journal of Economics*, 41, 4 (1973).

¹⁹ G. Marais, "Structural changes in manufacturing industry, 1916 to 1975", *South African Journal of Economics*, 49, 1 (1981).

²⁰ A.B. Lumby, "A comment on the real forces in South Africa's industrial growth prior to 1939", *South African Journal of Economic History*, 5, 1 (March 1990).

²¹ See the early articles in the *South African Journal of Economics* at the time when the policy was implemented: J.N. Reedman, "Report of the Industrial Legislation Commission", *South African Journal of Economics*, 4 (1936); F.A. Byron and R. Smith, "The expansion of industry and the supply of labour", *South African Journal of Economics*, 9 (1941); R.L. Trenfell, "Some comments on secondary industry in South Africa", *South African Journal of Economics*, 14 (1946); as well as the article by W. Busschau to which footnote 20 of Trenfell's article refers.

Jones and Müller, Nattrass, Lumby, Archer²² and Bottomley²³ emphasize the fact that the government in 1924 saw the promotion of local industrialization firstly as a mechanism to resolve the issue of poverty and unemployment among whites. These writers acknowledge that the decision of the Pact government to impose tariffs on imports in order to protect the local industries and to accept the strategy of the replacement of imports had indeed contributed to the rapid increase in industrial production since the mid-twenties. These writers base their view on the industrial census regarding drastic increases in the number of industries, gross production, the processing of raw materials, employment levels, added value in industrial production and the relative contribution to the GDP. It is also generally accepted that the expansion of the mining industry generated capital for the expansion of domestic industries because of the high cost of protectionism. Kahn indicates in a more recent study that the replacement of imports was fairly successful with regard to consumer goods, in particular, but that the importation of machinery as well as vehicle and transport equipment (thus capital equipment) remained high.²⁴

However, the protectionism and import substitution strategy did not meet the expectations of job creation (according to Archer, 1989) and contributed largely to a capital intensification in the South African manufacturing sector.²⁵ Other sources of increased industrialization are the availability of labour and entrepreneurship (although the productivity of labour, especially since the seventies, is considered problematic), an improved infrastructure and the local growth of the iron and steel industries.²⁶ These writers concentrate on the analysis of figures from the national accounts in order to describe the actual growth and expansion of the industries in South Africa as part of the development of the economy. There is, however, no historical work that investigates the influence of protection/tariffs on the expansion of the industries.

²² S. Archer, "The South African industrialization debate and the tariff in the inter-war years", *The societies of Southern Africa in the nineteenth and twentieth centuries*, vol. 11 (Institute of Commonwealth Affairs, University of London, 1981); S. Archer, "South Africa's industrial experience in perspective", *Social Dynamics*, 13, 1 (1987); S. Archer, "Industrial protection and employment creation in South Africa during the Inter-war years", *South African Journal of Economic History*, 8, 2 (September 1989).

²³ J. Bottomley, "The application of the theory of 'economic backwardness' to South Africa, 1881-1924", *South African Journal of Economic History*, 8, 2 (October 1993).

²⁴ S.B. Kahn, "Import penetration and import demand in the South African economy", *South African Journal of Economics*, 55, 3 (1987).

²⁵ B. Standish, "Resource endowments, constraints and growth policies", in I. Abedian and B. Standish (eds.), *Economic growth in South Africa. Selected policy issues*. (Cape Town, 1992), p. 118, as well as pp. 138-140; Nattrass, *South African economy*, pp. 165-168; and A. Lumby, "The customs tariff and the cement industry in South Africa, 1886-1939", *South African Journal of Economic History*, 4, 1 (1989), in which Lumby shows how tariff protection promoted the cement industry, without ensuring more white employment.

²⁶ Compare for example Jones and Müller, *South African Economy, 1910-1990*, pp. 167-169.

The second topic about which more has been written in the economic journals than in the history journals, is industrial decentralization. The economists' debate revolves mainly around the disruption of free market forces, attempts at the manipulation of labour and the enormous cost of the non-optimal utilization of sources, at the expense of industrial effectiveness. Jones and Müller (pp. 286-293), Lumby (pp. 239-244) and Natrass (pp. 180-183) emphasize the arguments in favour of the greater geographic distribution of industries in South Africa, but point to the failure of the government's attempts at industrial decentralization. The writers regard this policy of the government as part of the (unhealthy) increase in the governmental encroachment on the economy, which they warn against in terms of the free market system. It is Merle Lipton, in particular, who criticizes the decentralization programme in South Africa explicitly as a political programme of the government of the day. She highlights the negative effect of this policy on growth in the metropolitan areas and the cost structure of the industries through the misallocation of labour and capital.²⁷ Lumby (1989) also states that the protection of specific industries, the cement industry in this case, had a negative effect on the cost structures of related industries.²⁸ In the case of the question pertaining to industrial decentralization, there is no historical investigation into the progress and effect of the policy of decentralization on the South African economy.

Economic historians considered industrialization, in the words of Tom Kemp, as "...the means to raise living standards and to ensure national independence..."²⁹ Industrialization is regarded as the driving force of economic growth, especially since the 1960s, and as the source of improved living conditions for the average South African.³⁰ Industrialization resulted in excellent growth in the tertiary sector through which the levels of living standards and the income levels continued to increase considerably.³¹ It is neither denied that there is still dualism in the level of economic development in South Africa nor that rural and urban poverty still exist. The general view is, however, that a capitalist free market orientation creates the greatest possible opportunity for improved living standards.

2. Economists' discussion of industrialization

The earliest publications about the state of industrialization in South Africa highlighted the narrow basis of industrial activity in the country. The industrial sector consisted

²⁷ M. Lipton, *Capitalism and apartheid. South Africa, 1910-1986* (London, 1986), pp. 244-247.

²⁸ Lumby, "Customs tariff and cement industry".

²⁹ T. Kemp, *Industrialisation in the non-western World* (London, 1989), p. 11.

³⁰ S. Jones, "Real growth in the South African economy since 1961", *South African Journal of Economic History*, 5, 2 (September 1990).

³¹ S. Jones, "Real growth in the South African economy since 1961 - Part II: The tertiary sector", *South African Journal of Economic History*, 6, 1 (March 1991).

mainly of the industries that enjoyed the protection of the gold-mining industry.³² The economists soon began to plead for government protection in order to encourage the growth of local industries. South Africa is considered a latecomer country, according to the Gerschenkron model, with a limited local market and high transport costs. This would justify the notion that tariff protection should be granted to local industries. Numerous writers pleaded strongly for tariff protection for local industries.³³ The insistence on more comprehensive tariff protection followed the threat to the existence of the very industries that were established during the war, but were in danger of collapsing after the levelling-out of the post-war revival. Numerous publications insisted that the Smuts government should replace the temporary Board of Trade and Industry with a permanent body that would be able to provide comprehensive protection.³⁴ The eventual Pact government policy of tariff protection and the replacement of imports met with support and resistance: it was the gold concern that opposed increased tariff protection, in particular, because increased tariffs would increase cost of imported inputs. The support was based on the expected multiplier effect that the local industrial development would have had.³⁵

The economic journals widely recognized the nature and scope of industrial growth since the thirties, especially the relative prosperity of the local industries as a result of the anti-cyclical expansion of the gold-mining industry during the worldwide depression and the drought of the thirties.³⁶ Economists paid particular attention to the strong role of the construction and manufacturing industries as cornerstones of domestic growth,

³² H.B. Frere, *Industrial resources of South Africa* (Londen, 1881); A. Wilmot, *The book of South African industries* (Cape Town, 1892).

³³ S. Evans, *South Africa: Preference and protection in British South Africa* (Johannesburg, 1912); H.P. Gordon, *Protection and prosperity versus free trade and industrial ruin* (Cape Town, 1912); K. Gundelfinger, *Protection and free trade* (Cape Town, 1912); W.J. Laite, *The Union tariff: The case of manufacturers* (Cape Town, 1913).

³⁴ W.F. McMullen, "The Union's industrial progress", *South African Journal of Industries*, 6 (1923); H.J. Choles, "Recent progress in manufacturing industries", *South African Journal of Industries*, 6 (1923); A.J. Bruwer, *Protection in South Africa* (Stellenbosch, 1923); H.E.S. Freemantle, "Industrial development in South Africa", *South African Journal of Industries*, 7 (1924).

³⁵ C.W. Pearsall, "Some aspects of the development of secondary industry in the Union of South Africa", *South African Journal of Economics*, 5, 4 (1937); H.E.S. Freemantle, "The outlook for industrialism in South Africa", *South African Journal of Industries*, 8 (1925); A.J. Bruwer, "The Union Tariff of 1925", *South African Journal of Economics*, 1, 1 (January 1927); A.J. Bruwer, "Effects of the policy of protection", *Commercial and Industrial Gazette*, 1, 13 (May 1927).

³⁶ A.P.J. Fourie, "The organisation and development of secondary industry in the Union of South Africa", *Commercial and Industrial Gazette*, 4, 42 (October 1929); L. Katzen, *Gold and the South African economy* (Cape Town, 1964).

but they had doubts about the sustainability of that development.³⁷ Rapid industrial growth depended on the imported input (industrial raw materials) and capital equipment, while very few industrial productions were exported, making local industries dependent on the foreign exchange earnings of the primary sector to finance those imports.³⁸ The publications in the economic journals described the effect of World War II on the local industries very broadly, but the greater complexity and maturation of local industrialization have been described since the sixties.³⁹ Particular attention was paid to sources of industrial growth, the location of the industries, the role of tariff protection, the contributions of certain organizations such as ESCOM, SASOL and ARMSCOR as well as South Africa's industrialization in a comparative perspective.⁴⁰

Two matters continued to arouse intense debate among economists, namely the problem of the centralization of industries and the problem of the dependence of local industries on imported materials. The decentralization/regional development programme debate was conducted chiefly in the *South African Journal of Economics*.⁴¹

³⁷ V. Bosman, *Industrial development in South Africa* (Pretoria, 1936); G.C.R. Bosman: *The industrialisation of South Africa* (Rotterdam, 1938).

³⁸ See Pearsall, "Secondary industry", footnote 33; F.J. van Biljon, *State interference in South Africa* (London, 1938); C.E.W. Lea, "Industrialisation and the development of the South African Economy", MA dissertation, University of Pretoria (1941).

³⁹ H.J. Laite, *The importance of industries in the economic and social progress of South Africa* (Cape Town, 1943); W.A. Pitts, "South African industry - Past and future: Its achievements in the War period", *South African Mining and Engineering Journal*, 56, 2 (February 1946); H.M. Robertson, "The War and the South African economy", *The South African Journal of Economics*, 22, 1 (March 1954); J.H. Dobson, "South Africa in the post-War era: Industrial progress reviewed", *South African Electrical Review*, 43, 373 (June 1949); H.J. van Eck, *Some aspects of South Africa's industrial revolution* (S.A. Institute of Race Relations, 1954); G.F.D. Palmer, "South Africa's Industrial Revolution", *Manufacturer*, 6, 5 (March 1965).

⁴⁰ C.S. Richards, "The task before us: With special reference to industry", *South African Journal of Economics*, 12, 3 (September 1944) and 13, 1 (March 1945); J.J. Kitshoff, "Die ontwikkeling van die sekondêre nywerheid in die Unie, 1915-1939", M. Comm dissertation, University of Pretoria (1950); G.F.D. Palmer, "Some aspects of the development of secondary industry in South Africa since the Depression of 1929-32", *South African Journal of Economics*, 22, 1 (March 1954); L.H. Samuels, "Some aspects of industrial development in South Africa", *South African Journal of Economics*, 27, 2 (June 1959); G. Marais, "The relation between economic development and the location of secondary industry in South Africa", *Finance and Trade Review*, 5, 6 (1963); T.A. du Plessis, "The industrial growth pattern and the real forces of economic expansion in South Africa, 1916/17 - 1956/57", D. Com thesis, University of South Africa (1965); C.F. Scheepers, "Die invloed van invoervoervanging op die omvang en samestelling van Suid-Afrika se invoere, 1926/27 - 1963/64", D. Com thesis, University of the Orange Free State (1969); and J.A. Dökel, "Sources of growth in the South African manufacturing sector", *Journal for Studies in Economics and Econometrics*, 2 (April 1978).

⁴¹ S. van der Horst "The economics of decentralisation of industry", *South African Journal of Economics*, 33 (1965); R.T. Bell, "Some aspects of industrial decentralisation in South Africa", *South African Journal of Economics*, 41, 4 (1973); C.L. McCarthy, "Industrial decentralisation - reflections on the new initiatives", *South African Journal of Economics*, 50, 3 (1982); R.

Van der Horst highlighted the problem of political objectives with economic policies – leading to unequal incentives for industrialists, which results in an element of uncertainty in economic activity. Bell found that job creation in decentralized areas was unsuccessful and did not increase income levels, because population growth remained high and the wages remained low. McCarthy highlighted how the new regional development programme fell short of the restrictions of the decentralization programme, but – like Tomlinson, he rejected the rationale of job creation where labour is abundant. McCarthy and Tomlinson believe that development was replaced by the need for decentralization at the cost of development where most of the people were found, namely the urban areas. Dickman pointed out that the focus on the establishment of industries in rural areas was misplaced and that job creation in the tertiary sector (services and tourism) and the primary sector (agriculture and mining) would be more cost effective and profitable in terms of the creation of job opportunities.⁴² The conclusion of Holden's analysis of the cost of industrial decentralization is that South Africa cannot afford such a policy. She agrees with Addleson's view that subsidies for industrial decentralization had the result that negative value was added to production and that economic growth in those areas depended on the transfer of sources from more developed areas to less developed areas. This represents a transfer of sources and not development.⁴³ Although there is recognition of the economic rationale behind industrial decentralization, namely better utilization of sources and a reduction in the income differentials between geographic areas, the political rationale behind industrial decentralization placed serious restrictions on it.⁴⁴

In the second case, the success of the policy of industrial protectionism was analysed. The existence of protection contributed to the expansion of the industrial base of the economy, but did not generate a sustained process of industrial growth. The dependence of local industries on imports resulted in constant balance of payment

Tomlinson, "Industrial decentralisation and relief of poverty in the homelands", *South African Journal of Economics*, 51, 4 (1983); M.G. Holden, "Costs of decentralisation: A theoretical and empirical analysis", *South African Journal of Economics*, 58, 2 (1990); A.B. Dickman, "Costs of industrial decentralisation in South Africa", *South African Journal of Economics*, 59, 2 (1991).

⁴² S.F. Coetzee, "Ruimtelike ekonomiese ontwikkeling in Suid-Afrika na aanleiding van die nuwe nywerheidsontwikkelingsvoorstelle", *Journal of Economics and Econometrics*, 10 (April 1981) - here Coetzee supports the view of Dickman that not only industrial development should be permitted in decentralised areas.

⁴³ M. Addleson, "Decentralisation incentives, industrialists' plans and the location of manufacturing activity", *South African Journal of Economics*, 58, 2 (1990).

⁴⁴ A.B. Lumby, "Industrial history in South Africa: Past trends and future needs", *South African Journal of Economic History*, 10, 1 (March 1995), p. 81.

problems.⁴⁵ The debate shifted to export-orientated industrialization.⁴⁶ The emphasis fell on the analysis of the cost of industrial production, with protection for the limited local market, against the cost-effective internationally-competitive industrial production of the other South-East Asian countries. However, Standish and Galloway analysed the competitive advantage that the South African manufacturing industries enjoyed by 1990 and found that only two industrial sectors, namely wood and wooden products and the metal products industry, possibly enjoy a competitive advantage. The other manufacturing industries are excessively dependent on capital (making them too capital intensive), which is a scarce commodity in the case of South Africa. Overcapitalization means ineffective use of capital, which hampers a successful export attempt. Therefore, their view is that export incentives would definitely increase exports, but at what cost: are the exports that are subsidized in this way internationally competitive?⁴⁷

Most international handbooks on development still debate the desirability of an inward-looking strategy as opposed to an outward-looking strategy for industrialization. However, in South Africa it is not the historians who entered into this debate, but it is essentially a debate among economists. The most important contribution made by economic historians in this regard is the exploratory work by André Müller in which he analyses the economic policies of the governments in Singapore and South Korea with regard to industrial development, and he highlights the advantages of the outward-looking strategy for industrial development.⁴⁸

The economists' valuable contribution to the study of industrialization in South Africa is found in the fact that empirical studies were and are undertaken, which form the basis on which historians can study the developmental process of industrialization. There are more articles than can be recorded here in a footnote, but the thorough use of publications in *The South African Journal of Economics* and the *Journal for the Study*

⁴⁵ Natrass, *South African economy*, pp. 146-147. See also the report by A.B. Lumby, "Industrial history in South Africa: An exploratory survey". Paper presented to the Bi-annual Conference of the Economic History Society of Southern Africa, UNISA, 24 July 1994.

⁴⁶ S.J. Kleu, "Industrial policy", in J.A. Lombard (ed.), *Economic policy in South Africa* (Pretoria, 1973); M.L. Truu (ed.), *Public policy and the South African economy* (Cape Town, 1976); B. Kantor and D. Rees, *South African economic issues* (Cape Town, 1982), chapter 5; R.P. 69/1972, Reynders Commission: *Report of the commission of enquiry into the export trade of the Republic of South Africa*; G. Marais, "Import replacement and the development of intermediate industries in South Africa", *Finance and Trade Review*, 7 (March 1966); T.A. du Plessis, "Nywerheidsontwikkeling - vraagfaktore", *South African Journal of Economics*, 41, 4 (December 1973); R.T. Bell, "Productivity and foreign trade in South African development strategy," *South African Journal of Economics*, 43, 4 (December 1975); A.E. Ratcliffe, "Industrial development policy in South Africa", *South African Journal of Economics*, 47, 4 (December 1979).

⁴⁷ B. Standish and D. Galloway, "Exports, efficiency and capital in South African manufacturing", *Journal for Economics and Econometrics*, 15, 1 (1991).

⁴⁸ See A.L. Müller, "Industrial policy in Singapore", *South African Journal of Economics*, 62, 3 (September 1994).

of *Economics and Econometrics*, among others, makes it possible for us to study industrialization in South Africa from the macro- and micro-economic perspectives.

3. Sociopolitical historiography on industrialization in South Africa

Neo-Marxist historiography, which is also sometimes known as revisionist historiography, began to evaluate the structural characteristics of the South African political economy in the early seventies in order to establish whether the dynamic forces of modernization would "...in fact tend to dissolve the racial oligarchy. Underlying all these arguments is the assumption that all of Southern Africa is involved in one economy".⁴⁹ The main purpose of neo-Marxist historiography was, therefore, to indicate that the South African economy was not a dualist economy, but a united one in fact, in which racial policies were functional to its growth.⁵⁰ The agenda was thus to link apartheid as a functional political programme to capitalist economic development. The neo-Marxist writers never investigated industrialization in South Africa as an economic phenomenon as such, but within the framework of the political economy of racial domination in order to explain why the conventional Marxist class struggle between capital and labour (irrespective of race) in South Africa was not realized – thus how the racial political economy is explained.

The theoretical basis of neo-Marxist historiography is historical materialism, which means in economic theory that value is created only through labour, which will as such result in the dynamic process of the class struggle among parts of the capitalist class on the one hand, and between capital and labour on the other hand. The neo-Marxist historians did not investigate the economic aspect of industrialization, but the sociopolitical implications/consequences of what they felt was the inevitable stage of capitalist development (namely industrialization) in the South African and the Southern African societies. The abstract value theory also assumes that the class struggle will take place and that capital will be regrouped in this process in order to postpone the decisive confrontation (industrialization is regarded as regrouping, a transition from monopoly agricultural or monopoly mining capital to industrial capital). Consequently, the investigation is not about how supply and demand affect prices or markets, for instance, but about the class struggle, the struggle between capital (in whatever form) and labour – basically a predetermined struggle. The focus is on the transformation of "society into a modern industrial economy ..." and not on economic change.⁵¹ Saunders also feels that the revisionists have not yet written a history of

⁴⁹ Peter Kallaway "What happened in South African History?", *Concept* (June 1975).

⁵⁰ See G. Verhoef, "Die radikale historiografie oor Suid-Afrika. 'n Historiografiese studie.", MA dissertation, RAU (November 1982), pp. 66-68, 129-130, 187-243. This study refers to the articles and other publications of revisionists on the functionality of apartheid to capitalism.

⁵¹ See B. Freund, "Development and underdevelopment in Southern Africa: An historical overview", *Geoforum*, 17, 2 (1986).

industrialization, but a history of social transformation from pre-capitalism to capitalism through racism.⁵²

Industrialization, which is primarily the macro-economic phenomenon of increasing secondary industrial activity and the growth of the manufacturing industry, is not the focus of the neo-Marxist writing of history. The neo-Marxist publications on the political economy and social transformation during industrialization cover the following topics:

1. The origin of segregation (and the other forms of racial discrimination in political programmes that followed) as a programme that is functional to the development of capitalism. This topic runs like a golden thread through the works of Legassick, Wolpe, Johnstone, O'Meara and more recently those of Deborah Posel.⁵³
2. Structuralism among the revisionists paid particular attention to the periodization of South Africa's economy in view of the class struggle between the fractions of capital (trade capital against mining capital, and mining capital against industrial capital, etc.) as an explanation of the actions of the state (as an instrument of the dominant capitalist class fraction). This refers particularly to the works of R. Davies,⁵⁴ D. Innes⁵⁵ and D. Kaplan.⁵⁶ All these works treat industrialization as part of the struggle between the

⁵² See e.g., M. Legassick, "The dynamics of modernisation in South Africa", *Journal of African History*, 13, 1 (1972) (Book review); - "Race, industrialisation and social change in South Africa: The case of R.F.A. Hoernlé", *African Affairs*, 75, 299 (1976); - "South Africa: Capital accumulation and violence", *Economy and Society*, 3, 3 (1974); D.E. Kaplan, "The politics of industrial protection in South Africa 1910-1939", *Journal of Southern African Studies*, 3, 1 (October 1976); S. Marks en R. Rathbone (eds.), *Industrialisation and social change in South Africa. African class formation and consciousness, 1870-1930* (London, 1982). - This is purely a social history of the different aspects of class formation in terms of historical materialism. The same applies to S. Marks en S. Trapido (eds.) *The politics of race and class and nationalism in twentieth century South Africa* (London, 1987); S. Trapido, "South Africa in a comparative study of industrialisation", *Journal of Development Studies*, 6, 3 (1971); B. Bozzoli, "Ideology and the manufacturing class", *ICS, CSP*, 15, 18 (1973/74); - "The origins, development and ideology of local manufacturing in South Africa", *Journal of Southern African Studies*, 1, 2 (1975); H. Wolpe, "Capitalism and cheap labour: Power in South Africa. From segregation to Apartheid", *Economy and Society*, 1 1 (1992).

⁵³ See also Legassick and Wolpe's articles above, as well as M. Legassick, "Legislation, ideology and economy in post-1948 South Africa", *Journal of Southern African Studies*, 1, 1 (1974); F.A. Johnstone, *Class, race and gold. Class relations and racial discrimination in South Africa* (London, 1976); Dan O'Meara, *Volkskapitalisme. Class, capital and ideology in the development of Afrikaner nationalism, 1934-1943* (Johannesburg, 1983); D. Posel *The making of apartheid, 1948-1961: Conflict and compromise* (Oxford, 1991).

⁵⁴ Rob Davies, *Capital, state and white labour in South Africa, 1900-1960. An historical materialist analysis of class formation and class relations* (Sussex, 1979).

⁵⁵ D. Innes, *Anglo. Anglo American and the rise of modern South Africa* (Johannesburg, 1984).

⁵⁶ D. Kaplan, "The politics of the industrial protection in South Africa, 1910-1939", *Journal of Southern African Studies*, 3, 1 (October 1970).

fractions of capital, with the emphasis on the "restructuring" to industrial capital of the mining capital (e.g. the Anglo American Corporation). The process of industrialization as such is not investigated.

3. Labour is naturally central to neo-Marxist historiography. The focus is on the process of "primitive accumulation", whereby the state proletarianized independent traditional communities forcibly into paid labour.⁵⁷ From the "civilized labour policy" of the Pact government, the Wages Act, and the Industrial Conciliation Act (1923) up to the Riekerk and Wiehahn Commissions, the topic was the manipulation of labour by the capitalists through the state.⁵⁸

When Freund writes about labour in the secondary industry, he points out how the composition of the industrial labour body, chiefly on the Witwatersrand, changed after the employment of more women and non-whites than was required by legislation.⁵⁹ He points to the pressure that the industrial capitalists exercised on the state when the latter wanted to structure the labour force in terms of policies of segregation. However, Freund contradicts Lipton's point of view that the racially-based policies of the state were dysfunctional for the business sector (p. 104).

4. The closest that neo-Marxist historiography comes to industrialization as an economic phenomenon is an investigation into the establishment of state enterprises in South Africa through the establishment of ISKOR, ESCOM and SASOL, etc. The first publication in this regard was that of R. Christie about ESCOM, which refers to the "kick-start" that local industrialization was given through the state's provision of electricity.⁶⁰ Similarly to what Natrass accepts, the interests of domestic capital

⁵⁷ See the literature about this to which reference is made in Verhoef, "Radikale geskiedskrywing", pp. 131-177, 235-298; W. Beinart, P. Delius en S. Trapido (eds.), *Putting a plough to the ground. Accumulation and dispossession in rural South Africa, 1850-1930* (Johannesburg, 1986); T.J. Keegan, *Rural transformations in industrializing South Africa: The Southern Highveld to 1914* (Johannesburg, 1986).

⁵⁸ D. Richardson, *Chinese mine labour in the Transvaal* (Atlantic Highlands, Humanities, 1982); P. Rich, "Ministering to the white man's needs: The development of urban segregation in South Africa, 1913-1923", *African Studies*, 37, 2 (1978); E. Webster (ed.), "Essays in Southern African labour history", *Ravan Labour Studies*, 1, (Johannesburg, 1981); D. Hindson and M. Lacey, "Influx control and labour allocation: Policy and practice since the Riekerk Commission", *South African Review*, 1, (Johannesburg, 1983); D. Hindson, "The role of the labour bureaux in South Africa: A critique of the Riekerk Commission report", in D. Hudson (ed.) *Working papers in Southern African Studies*, 3, (Johannesburg, 1983); See also D. Posel (footnote 36) and D. Hindson, Book Review, *Journal of Southern African Studies*, 14, 1 (1987) on the impact of influx control on the regulation of labour. They interpret influx control as functional to the development of industrialisation.

⁵⁹ W.M. Freund, "The social character of secondary industry in South Africa: 1915-1945. (With special reference to the Witwatersrand)", in A. Mabin (ed.), *Organisation and economic change, Southern African Studies*, 5 (Johannesburg, 1989).

⁶⁰ R. Christie, *Electricity, industry and class in South Africa* (Albany, 1984).

benefited more than those of foreign capital in that state corporations favoured local industrialization. Christie emphasizes the victory of domestic capital over foreign capital with the establishment of ESKOM, but keeps his explanation of the role of electricity sturdily within the neo-Marxist class struggle paradigm. D. Innes has the same approach with regard to ESKOM, ISCOR and the Industrial Development Corporation.⁶¹ Nancy Clark agrees with the economic historians (referred to in footnote 25) who stated that the establishment of state corporations supported local industrialization, but she denies that the establishment thereof resulted in a split with foreign capital. She maintains the "single capitalist world economy approach" and points to the sustained foreign investment in state corporations and agreements in order to prevent competition, as mechanisms to provide these corporations with high profits.⁶² Clark explains: "The state corporations did not so much challenge private capital ... they rather provided a greaving link between the state and the private sector."⁶³

The neo-Marxist historians contributed to a sociological view of the social impact of economic change in South Africa, but they did not study industrialization as an economic phenomenon as such, since their paradigm did not permit it. The abstract value theory focuses on the value that is only created through labour as a dynamic driving force in the historically-determined class struggle. Even in the most recent overview by Bozzoli and Delius, industrialization does not appear as a central economic phenomenon in the history of South Africa.⁶⁴

A historiographical debate about industrialization?

Shula Marks pointed out that the political changes that were effected in South Africa since the late seventies placed serious restriction on the view that the state always acted functionally to the needs of capitalism⁶⁵ However, this paper does not deal with the capitalist/apartheid debate as such. Therefore, it is only noted that the political changes in South Africa that were responsible for admissions that sustained capitalist economic growth came into conflict with political policies of segregation. Merle Lipton conceded that the cost of apartheid was too high for capitalism. The ultimate "logic of

⁶¹ Innes, *Anglo*.

⁶² N. Clark, "South African state corporations: The death knell of economic colonialism", *Journal of Southern African Studies*, 14, 1 (1987).

⁶³ *Ibid.*, p. 122.

⁶⁴ See B. Bozzoli and P. Delius, "Radical history and South African society", *Radical History Review*, 46, 7 (1990).

⁶⁵ Referred to by N. Nattrass, "Controversies about capitalism and apartheid in South Africa: An economic perspective", *Journal of Southern African Studies*, 17, 4 (December 1991), p. 674, footnote 133.

the market" undermined apartheid.⁶⁶ However, the important point is that political changes eventually highlighted the untenability of the neo-Marxist stance.

However, the economists and economic historians did not enter into a debate with the revisionist writers about industrialization. These two groups argued from different theoretical frameworks. Merle Lipton's work *Capitalism and Apartheid* (1986) tried to reconcile the so-called "liberal/radical debate" by conceding that certain aspects of early policies of segregation were nevertheless things with which capitalism could live.⁶⁷ Neo-Marxist historians never undertook thorough economic research in order to determine, for instance, the exact relationship between wages, productivity, profitability and capital intensity. This is the result of the neo-Marxist support of theoretical coherence because they did not employ the research methodology or concepts of economics as such.⁶⁸ Nattrass' research points out that the policy of apartheid undermined profitability and productivity, and ultimately led to increased capital intensity in production instead of labour intensity.⁶⁹

Fine and Rustomjee emphasize that mining capital also contributed hugely to industrial diversification, as opposed to the view that only the state promoted industrialization by means of industrial protectionism. Therefore, they place more emphasis on political and economic cooperation and interdependence, even in the period between the two world wars, rather than interpreting industrial growth only as a result of the class struggle. Industrial growth and diversification occurred even outside the sectors that enjoyed state support, such as the chemical and industrial diamond-product industries, in association with the mining industry itself.⁷⁰ The untenability of the simplistic class analysis as an explanation of the relationship between economic and political power in the late eighties and nineties in South Africa applies equally to the period between the two world wars.

South African historiography should now enter a new phase of a new investigation into the history of industrialization, provided that the investigation is an economic-historical

⁶⁶ Reference is here made to: A. Torchia, "The business of business: An analysis of the political behaviour of the South African manufacturing sector under the Nationalists", *Journal of Southern African Studies*, 14, 3 (1988). Torchia is of the opinion that political unrest promoted change; O. Crankshaw, "Apartheid and economic growth: Craft unions, capital and the state in the South African building industry, 1945-1975", *Journal of Southern African Studies*, 16, 3 (1990).

⁶⁷ Lipton, *Capitalism and apartheid*, pp. 318-376; see K.R. Hughes, "Lipton's 'Capitalism and apartheid' in the light of modern social theory". Paper presented to the Conference of the South African Historical Association, January 1989, Pietermaritzburg.

⁶⁸ Nattrass, "Controversies", p. 655.

⁶⁹ *Ibid.*, p. 676.

⁷⁰ B. Fine and Z. Rustomjee, "The political economy of South Africa in the interwar period", *Social Dynamics*, 18, 2 (1992).

one. This means that thorough research, based on economic methodology, should be done qualitatively and quantitatively in order to highlight the lack of empirical studies on the origin, development and diversification of industrialization. It is not sufficient to rely on the differences in theoretical perspectives alone as an explanation for the incomprehensive historiography on industrialization. Basic empirical studies already undertaken by economists should be studied, and other issues should be highlighted. Some are referred to here:

- * Monetary and fiscal policy and the impact thereof on industrialization. This refers to an investigation into the influence of monetary and fiscal policies on industrial growth. The experience of Japanese or South Korean industrialization could serve as a valuable source of comparison here.
- * The financing of industrialization through the different phases of the process. The question to be asked here is: how far did the state or the private sector finance the process or how far should it have been financed?
- * The development of the cost structures in the industries, especially to establish how far industrial protectionism, as well as labour unions and labour policies influenced the profitability of the industrial sector.
- * Many more case studies about individual enterprises, corporations or industries should be undertaken so that a synthesis on industrial growth and diversification can eventually be written.
- * The work of Archer, which points to the actual impact of tariffs on job creation throughout South Africa's economic history, should be taken further, in systematic analysis.
- * The role of international trade and the GATT requirements with regard to the removal of the protection of local industries should be researched systematically.
- * Trade cycles that could contribute to a boom/depression in industrial growth, deserve more attention. South Africa's experience of industrialization should be placed in perspective with regard to industrialization in other parts of the world.
- * An evaluation of the chronology in industrialization is still necessary. Empirical tests of Rostow's phases of industrialization should be measured against South Africa's experience.
- * Case studies of the role of the IDC, the mining industry and other industrial branches, with particular reference to industrial growth and diversification in South Africa.
- * The role of technological development in South African industrialization has largely remained untouched.

Conclusion

The research on industrialization in South Africa did not take the form of a debate. Various aspects of industrialization were looked at from different paradigms. The differences in the historical ranks are found in the interpretation of the social consequences of industrialization, and the political functionality of apartheid as such for capitalist development. The focus of the economic historians and of the economists was not on the socio-political aspects of industrialization, but on the investigation of

industrialization as an economic phenomenon. The links that may be found with the social history of industrialization would lie in the answers to the interpretation of industrialization by the neo-Marxist historians. The answers to the questions about industrialization will have to be the result of in-depth economic research, not of ideological arguments about industrialization from a specific preconceived theoretical framework. The research of economic historians and economists on the cost of industrialization, labour and technology; the influence of monetary and fiscal policy on industrialization; and growth/depression in industrial production over time, etc. (answers to the types of question stated above) should ultimately establish the history of industrialization in South Africa. This cannot be done by people who do not know economics. Therefore, my point of view is that the liberal/neo-Marxist tug of war on the sideline regarding industrialization will continue, but that the answers will only come from in-depth economic research into the nature and specific manifestation of industrial development in South Africa. It is necessary for the core of economic history to be restored: "In order to qualify as economic history, a given piece of research must tackle issues of an economic nature – that is to put it crudely, issues that tackle in some way the three basic questions in economics:

What to produce?
How to produce it?
How to distribute the product?

In practice, these three questions branch out into a series of more specific questions relating to the determination of prices; the allocation of scarce resources; short-term and long-term variations in production, employment, and demand, and their structure; variations in the distribution of wealth and income; and so on. To qualify as economic history a piece of research must employ the conceptual instruments, the analytical categories and the type of logic forged by economic theory."⁷¹

Research on industrialization should be done by economic historians and in conjunction with fundamental economic research in order to prevent the discussion on industrialization in South Africa from remaining relativist social history writing, such as was reflected in a recent publication, which John Iliffe described as "... a survey of the field without citing a single contribution to the South African Journal of Economic History."⁷²

⁷¹ Cipolla, *Between History and Economics*, p. 7.

⁷² W.M. Freund, "Economic history in South Africa: An introductory overview", *South African Historical Journal*, 34 (1996); J. Iliffe, "The South African economy, 1652 –1997", *Economic History Review*, 52,1 (1999), p.87.