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MY PAPERS IN ECONOMICS:
AN ANNOTATED BIBLIOGRAPHY

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1. Introduction

Since the mid-1960s, I have written extensively on development economics, the economics of Latin America and Brazil's economic problems. My papers include essays on persuasion and reflections on economic policy-making experiences.

I review these contributions roughly in chronological order not only because of the variety of topics but also because they tend to come together in specific periods.

There are seven periods to consider, identified according to my main institutional affiliations: Yale University, 1964-1968; ODEPLAN, Chile, 1969; IPEA-Rio, 1970-71; University of Brasilia and Harvard University, 1972-1978; PUC-Rio, 1979-1993; Academic research interregnum, 1994-2002; and IEPE/Casa das Garças since 2003.

2. Yale University, 1964-1968

My first published text was originally a term paper for a Master's level class in international economics at Yale University. In *The Strategy of Economic Development*, Albert Hirschman suggested that less developed countries would be relatively more efficient at producing goods that required "machine-paced" operations. Carlos Diaz-Alejandro interpreted machine-paced as meaning capital-intensive

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technologies, and tested the hypothesis that relative labor productivity in a developing country would be higher in more capital-intensive industries. He found some evidence for this. I disagreed with his argument. Labor in developing countries are in excess supply, I argued, hence labor-productivity in the modern sector is not as relevant as the productivity of capital, which was the scarce factor of production. The more productive capital was, the more people could be transferred from the rural to the urban sector. Hence, I tested if the productivity of capital was relatively higher in Mexico vis-à-vis the US in capital-intensive industries. I used data from the 1960 Censuses on two-digit industries in Mexico and the US to estimate a regression of the ratio of the productivity of capital in the two countries on the capital-labor ratio (in Mexico). I found no evidence for the Díaz-Alejandro version of the Hirschman hypothesis.

This paper was published in Mexico's *El Trimestre Económico* in 1966 (Bacha, 1966). In 1968, I completed my thesis on Brazilian coffee-policy, embedded in a multi-equation econometric model for the world coffee economy (Bacha, 1969). My innovation there was on what can be called politimetrics, the study of economic-policy making rules with the use of econometric techniques. Received wisdom argued that the Brazilian government used its dominant position in the world coffee market to fix the price of its coffee at the level that maximized the country's foreign exchange revenue. That is, at the point of the world demand curve for Brazilian coffee at which the absolute value of the price-elasticity of demand reached the value of unity. I disagreed with this interpretation. First, available estimates of the absolute value of the price elasticity of coffee demand were unanimously much lower than unity. Second, a historical analysis of the rationale of Brazilian economic policy makers showed that, besides foreign exchange revenue, they were also concerned with the local-currency costs of sustaining high coffee prices abroad. They dealt with this last concern partially with taxes on coffee production, but these were violently fought off by the powerful coffee lobby. The consequence was the accumulation of sizable stocks of coffee in government warehouses, the acquisition and maintenance of which were costly for the government budget (over and above the yield of local taxes on coffee production). I thus tested the hypothesis that the Brazilian coffee policy-makers set the price of coffee midway between the value that maximized coffee-export revenues and the value that minimized the net outlays of the Brazilian government to acquire the surplus of coffee production over exports. My econometric evidence showed this to be indeed the case, with the weights of each objective being dependent on the size of existing coffee stocks.

3. ODEPLAN, Chile, 1969

My first job after obtaining a Ph.D. at Yale was as a research associate of the MIT Center for International Affairs. I was member of a MIT-Harvard mission to Santiago, Chile, to help the local government's Ministry of Planning (ODEPLAN) on the formulation of economic development policies. In this context, I wrote a paper with Lance Taylor on the shadow price of foreign exchange. This was published as the leading article of the May 1971 issue of the Quarterly Journal of Economics (Bacha and Taylor, 1971). My main contribution in this paper was the development of a formula for the calculation of the "equilibrium" exchange rate, defined as that which-–in a partial equilibrium context--would equilibrate the foreign-exchange market in absence of distortions, particularly those caused by tariffs on imports and subsidies on exports. This became known as the "Bacha-Taylor shadow exchange rate formula", a useful tool not only for social cost-benefit analysis, but also to evaluate the impact of tax-distortions on the level of the exchange rate, and to estimate the exchange rate that policy-makers should aim at in the context of a liberalization of trade flows.

In Chile, I became very impressed with the reluctance of Venezuela to open up its economy to its partners in the Andean Group. The reason was that this would cause a "deindustrialization" of the country. Thus, I decided to write a simple three-sector trade model ("agriculture-and-mining", "light industry", and "heavy industry") to provide an ordering of trade-policy alternatives for a country whose government had a "preference for industry" even though it had a comparative disadvantage in that activity (Bacha, 1973). That is, I restricted the field of policy choices to those alternatives that complied with a given share of industry in aggregate output. Free trade was not feasible; but I showed that an ideal ordering of trade policy alternatives in this second-best context was, first, tariff preferences in industrial countries' markets; and second, either a customs union or industrial exports subsidies. Industrial deepening (as preferred by Venezuelan policy makers) was a poor third choice.

4. IPEA-Rio, 1970-1971

In 1970, I moved to Rio de Janeiro and worked for a couple of years at IPEA. With the help of three younger economists, I produced a book-length study on the shadow prices for capital, labor, and foreign exchange in Brazil (Bacha, Araujo, Mata, and Modenesi, 1971). The idea, which never fructified, was to use these parameters in social cost-benefit analyses in the country. We found that the social rate of return on capital (or the social rate of discount) was a hefty 18%, nearly twice as high as the value used to discount income streams in project analysis at the National Development Bank (BNDES). The shadow price of unskilled labor was ½ of its market price in the Northeast, and 2/3 of the going labor cost in the Southeast. The shadow price of foreign exchange was 25% higher (i.e., more devalued) than the observed exchange rate. Later, I embedded these results in a broader empirical study of shadow prices for social project analysis in developing countries (Bacha, 1977).

At IPEA, I also developed a simple formula to decompose the growth of employment in two-digit Brazilian manufacturing sectors into three components. The first term (which I denominated “expansion”) depended on the growth rate of manufacturing value added as a whole. The second term (“structural”) was dependent of the change of the sectorial composition of manufacturing. The third term (“technological”) depended on the growth rate of labor productivity. With the help of Milton da Mata I then applied this decomposition to Brazilian data for the 1949-69 period (Bacha and Mata, 1973). We showed *inter alia* that both the “structural” and the “technological” components reduced the labor absorption that would have occurred in their absence through the “expansion” component.

My concern with the slow rhythm of labor absorption in Brazil’s modern sector led me to write my first “essay on persuasion”, namely, an advocacy for the adoption of a more labor-intensive and export-oriented development strategy, in opposition to what I saw as the propensity of Brazilian policy-makers to emphasize a capital-intensive import substitution strategy. The paper, written in Portuguese and entitled *Underemployment, the social cost of labor, and Brazil’s growth strategy* had a significant political impact, leading to intense debates including in the Brazilian Senate in the early 1970s (Bacha, 1972).

5. University of Brasilia and Harvard University, 1972-1978

My next job was at the University of Brasilia, to where I moved in 1972 to become head of the Department of Economics and start a new M.A. in Economics program there. The focus of my research in Brasilia was on income distribution in Brazil.

In one of the papers I wrote on this topic I took issue with the prevalent view that the trend towards income concentration was a consequence of the shortage of skilled labor in the country. My point in *Hierarchy and managerial salaries* (Bacha, 1974) was that the remuneration of managers (defined as those that occupied positions higher up in the firms' hierarchy ladder) was more closely associated to the profit rate than to the rate of return on education. I used several private wage surveys to try to disentangle the remuneration of "high-skilled managers" from that of "high-skilled line laborers" and obtained some evidence for my hypothesis. In the end, however, I had to give up on this unconventional "sociological" and "managerial" view of the labor market. In the early 1970s, the human capital hypothesis reigned supreme in the labor economics field.

Another paper was a survey written with Lance Taylor on the Brazilian income distribution debate (Bacha and Taylor, 1978). Our main point was that Brazil's authoritarian government policy of wage compression was a crucial factor explaining the income concentration in the country in the 1960s. We were again facing the alternative hypothesis that this concentration had to do with the scarcity of skilled labor. To us the data clearly showed that the population deciles whose income grew less were those around the minimum wage, which was left lagging the inflation rate by government design. The population deciles with incomes much lower than the minimum wage (mostly rural laborers) hadn't suffered as much. But again, given the prevalence of the competitive labor market hypothesis and the power of the human capital theory in those days, in the end the professional view was that Lance Taylor and I were adopting a "political" stance in opposition to the "scientific" one of those economists arguing in favor of the skilled-labor hypothesis. Nowadays, with the development of bargaining models and of imperfectly competitive labor market models, the economics profession seems to be more willing than in the past to accept an independent role for the minimum wage in the determination of the shape of the income distribution.

Having failed to convince the profession on the central role of government wage policies for Brazil's income concentration in the 1960s, I was infinitely more successful in drawing home my point with a short text for a more general public, based on an analytical paper by Hollis Chenery and Montek Ahluwalia. This was the first and most famous of my economic fables: *The King of Belindia* (Bacha, 1974). In it, I imagined a kingdom peopled by a few rich Belgians surrounded by a sea of poor Indians. A visiting economist is hired by the King to measure the kingdom's growth rate. Rather than starting with the national accounts, the economist starts with the household surveys. He then asks how to aggregate the growth rates of the incomes of each household to obtain a growth rate for the country as a whole. The economist comes up with three distinct weighing schemes: a poor-based one, a democratic-based one, and a rich-based one. He then shows that the rich-based weighting scheme gives him the same growth figure as that of GDP – which he then argues to be an index of the happiness of the rich (in Portuguese this sounds much better: *felicitômetro dos ricos*). In contrast with the rich-based scheme, both the poor-based and the democratic-based ones yielded very low growth rates for the kingdom in the 1960s. The King then fired his economic minister and made public the three alternative ways to measure Belindia's growth rate. The moral of the story was that they no longer made Kings as those in the past. The fable, published in 1974 in an opposition newsweekly in Brazil, was an instant success and became a powerful weapon to criticize the economic policies of the military government. Both at home and abroad Belindia has since become a nickname for Brazil, as a synthetic representation of the country's highly concentrated income distribution.

In Brasilia, I became fascinated with the Cambridge controversy on the theory of capital. In this context, we formed a study group to read Piero Sraffa's *Production of Commodities by Means of Commodities.* The end-result was a paper on "Sraffa and Classical Economics", written jointly with Dionisio Carneiro and Lance Taylor (Bacha, Carneiro and Taylor, 1977). This was a linear-algebra exercise that interpreted Sraffa's "standard system" of production of commodities by means of commodities as a regular input-output system. We then showed how this system could be used to derive a simple formula for David Ricardo's "invariant theory of value" (a commodity in terms of which the distribution of net product between profits and wages was invariant to changes in relative prices). Another simple formula could also be derived from this system to explain Karl Marx's "transformation of values into prices" (which also required the same "standard" commodity as that needed to solve Ricardo's problem). Besides the intellectual fun of writing this joint paper, for me its biggest advantage was that it provided a frame of reference for another paper that I wrote on the theory of unequal exchange.

In 1975 I became a visiting researcher at the Harvard Institute of Economic Development (on leave from the University of Brasilia), where I maintained my interest on income distribution issues. There, I wrote a critical review of the literature on the Kuznets' curve that relates income distribution and per capita incomes in an inverse U-shaped pattern (Bacha, 1979). I presented this paper in a plenary session at the 1977 Congress of the International Economic Association in Tokyo. In it, I criticized purely economic explanations of changes in the size income distribution across countries and through time, and emphasized instead the role of non-economic factors such as wars and social revolutions.

Another paper in this period took an even stronger structuralist stance: it consisted of a full-specialization two-country trade model to discuss “unequal exchange” in the trade pattern between the Center and the Periphery of the capitalist system. The paper puts together in a simple framework trade themes developed by Arthur Lewis, Harry Johnson, Raul Prebisch, Hans Singer, and Arghiri Emmanuel. In the model, the Center specializes in the good with a high income-demand elasticity, and the Periphery in the good with a low price-demand elasticity (these are the assumptions both of Harry Johnson’s “impoverishing growth” model and of the Prebisch-Singer’s thesis on the appropriation by the Center of the Periphery’s productivity gains). The real wage in the Periphery was fixed at the subsistence level, according to the Lewis labor surplus condition. Capitalists maximized the profit rate in the Periphery; by Emmanuel’s “imperialism of trade” hypothesis this was the same profit rate that ruled in the Center. In this model, labor-productivity increases in the Periphery left the wage-rate there invariant but reduced employment in its modern sector. By contrast, technical progress in the Center (where full employment ruled) resulted in higher wages there. Emmanuel might not like the conclusion, but according to the model (and our present-day reality), there was no such thing as an international solidarity of the working class. This paper was published as the leading article of the December 1978 issue of the Journal of Development Economics (Bacha, 1978).

Upon my return to Brazil, I spent one more year at the University of Brasilia. There I constructed from various sources historical wage series for the urban and the rural sectors of the Brazilian economy in the post-WW-II period. Based on this newly constructed data set I wrote a paper that showed that the urban-to-rural wage ratio historically had been very sensitive to the price-ratio between urban and rural products (Bacha, 1982a). That is, contrary to the Lewis hypothesis in the Brazilian past there had been a marked segmentation between the urban and rural labor markets. This was valid for the 1940s and 1950s. In the 1960s, the trends in the urban-to-rural-wage-ratio were dominated by political and institutional factors, namely, the extension to the rural sector of the labor legislation in 1963 and the subsequent minimum wage squeeze by the military government. In the 1970s, with the development of a market for daily migrant laborers, the urban-to-rural wage differential shrank rapidly and became much less sensitive to the food-to-manufacturing price ratio. Thus, historically one observed a trend towards shrinkage of the urban-to-rural wage differential. One also one did not observe any real wage gains by the unskilled urban labor force over the period. In the end, the paper vindicated Lewis's hypothesis, but strongly qualified it by the role played by labor-market government policies.

In another paper that was later reproduced in Gerard Meyers's compendium on *Leading Issues in Development Economics*, I looked at the relationships between agriculture and industry in broader terms (Bacha, 1980a). Traditionally, agriculture was viewed as providing two critical inputs for industrialization: wage-goods (as in Soviet-type forced industrializations) and foreign exchange (as in Latin America's import substitution industrialization). In both cases, a squeeze on the agricultural surplus was accepted as a legitimate path towards industrialization. More recently, I argued, this strategy was criticized with the argument that agriculture itself was a source of modernization and technical progress. "Getting the prices right" became the new mantra, in the sense of adopting price-policies that did not discriminate against the agricultural sector. The paper advises against abrupt changes in this direction, favoring gradualist approaches that are respectful of the structural rigidities that characterize developing economies.

6. PUC-Rio, 1979-1993

In 1979, I entered the Department of Economics of the Catholic University of Rio de Janeiro, and remained there through June 1993[2]. At PUC-Rio, the focus of my research shifted from income distribution to the macroeconomic issues of the ninety-eighties in Latin America.

Initially, I dealt with dollar constraints, debt crises, and economic stagnation. Later, with fiscal crises, high inflation and price-stabilization plans. Separately, I returned to the topic of my Ph.D. thesis and wrote a monograph on the history of Brazil's coffee valorization policies.

6.1. Dollar constraints, debt crises, and economic stagnation

For a 1984 Hollis Chenery festschrift volume, I wrote a paper rephrasing the Bruno-Chenery two-gap growth model as a fix-price case of the textbook macroeconomic model for a small open economy (Bacha, 1984a). In this paper, I interpreted the savings-constraint of the two-gap model as the condition for internal equilibrium (or full capacity utilization); and the foreign exchange constraint as the condition for external equilibrium (or balanced trade). A foreign-exchange constrained economy is one in which there is an upper limit for its exports (plus a fixed-coefficient technology for imported capital goods), such that external equilibrium occurs at a GDP growth rate lower than that achievable under full-utilization of domestic resources. In this context, "elasticity pessimism" about trade reaction to price changes and "fear of foreign exchange depreciation" are alternative explanations for why a country remains in a low-growth foreign-exchange constrained regime in absence of domestic capacity constraints.

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[2]Except for: a period as visiting professor at Columbia and Yale Universities in 1983-84; two other years as President of the Brazilian Institute of Geography and Statistics and as economic adviser to Brazil's Minister of Planning, in 1985-86; and a three-month period as a joint visiting professor at Berkeley and Stanford Universities, from December 1988 to February 1989.

In a companion paper, coauthored with Persio Arida, we develop an explicit fix-price disequilibrium macroeconomic model for the analysis of balance of payments regimes in an emerging market economy. In this model, published in 1987 in the Journal of Development Economics and in a volume of essays in memory of Carlos F. Díaz-Alejandro (Arida and Bacha, 1987), the Lewis labor surplus hypothesis is the mirror image of the Chenery-Bruno foreign exchange constraint. We argued that the balance of payments of a semi-industrialized economy typically sways between a Classical Deficit and a Structural Deficit situation, where these policy regimes are identified, respectively, with the IMF doctrine and the ECLA critique. Both are characterized by unemployment and balance of payments deficits, but the therapy to correct these ills depends on the nature of the disequilibrium in the goods market. In particular, the structuralist point of view is correct when the external deficit results not from excessive domestic demand but from insufficient external demand. But the conditions for a truly structural deficit are more stringent than claimed by the ECLA doctrine. The economy can present unemployment, external deficit, and excess supply of goods, and yet, depending on the price-elasticity of external demand, real exchange rate devaluations, if politically feasible, could eliminate the Structural deficit region.

The failed IMF-led adjustment attempts in Brazil in the early 1980s clearly showed the difficulties of fixing external disequilibrium purely through Central Bank credit restrictions and exchange rate devaluations. A critique of these policies is the object of two empirical papers on Brazil that I wrote for conferences at the Institute of International Economics in Washington, DC, in 1983 (Bacha, 1983a; Bacha, 1983b).

In this context, I also wrote a widely circulated essay in persuasion entitled *Brazil and the IMF: Prologue for the Third Letter of Intent* (Bacha, 1984b). This was is a plain language critique of the IMF medicine as applied to Brazil, because of its excessive focus on immediate balance of payments adjustment, with insufficient attention paid to the stagflationary consequences of these policies in Brazil's highly indexed economy.

Another paper, written for the Intergovernmental Group of Twenty-Four on International Monetary Affairs (the G-24), contained a step-by-step equation-based explanation of the so-called IMF financial exercises (Bacha, 1987c). The paper criticized the recessive bias embedded in these procedures, and advocated that they should be complemented by "growth exercises". The purpose of these would be to establish the external credit requirements of more sensible IMF-led adjustment programs. This formed the analytical backbone of a 1987 report by the Group of 24, *The Role of the IMF in Adjustment with Growth* (Bacha, 1987a).

In a paper presented at the December 1982 New York meeting of the Allied Social Sciences Association (Bacha, 1983c), I extended this type of critique to the failed open-monetarist experiments in the Southern Cone of South America (Argentina, Chile, and Uruguay) in the 1970s. The paper's main point is illustrated with a graph showing the extraordinary appreciation of the real exchange rate that these countries experienced when they implemented a fixed-nominal-exchange-rate strategy to control inflation in the presence of backward-looking wage-indexation. The policy point was that wage stickiness had to be dealt with directly rather than by forcing the economy into a disequilibrium path through an exchange rate anchor.

The nature of balance of payments disequilibria in emerging market economies was another hotly contested macroeconomic issue in the early 1980s. Working as an adviser to the Group of Twenty-Four on International Monetary Affairs, I developed an accounting framework to decompose changes in the current account of the balance of payments into domestic-policy-related variables and external-shocks-related variables. This formed the analytical basis for a 1985 UNCTAD report on *Compensatory Financing of Export Earnings Shortfalls*. The same decomposition exercise of current account disequilibria played a central role in an empirical analysis that I wrote on external shocks and Brazil's growth prospects in the 1973-1989 period (Bacha, 1986). I concluded that Brazil's foreign debt accumulated in the period mostly because of deteriorating terms of trade, interest rate shocks, and world recession. However, I also pointed out that, faced with adverse external circumstances, the Brazilian government opted for external financing rather than domestic adjustment.

A companion paper used a similar decomposition formula for an analysis of the impact of external shocks on Latin American countries in the 1978-82 period (Bacha, 1985b). The conclusion was that it was not possible to summarize in a single expression, such as "external shocks" or "excess spending", the reasons why Latin-American countries' external accounts deeply deteriorated in that period. Each case had to be analyzed individually.

The above exercises implicitly assumed that whatever was the source of the current account disequilibrium external financing would somehow accommodate it (even if that took the form of foreign reserves depletion). Autonomous foreign capital flows were not part of these analyses. But the increased availability of private foreign sources of funding were a major part of the history of Latin America's foreign indebtedness in the 1970s, eventually leading to the 1982 debt crisis. This story I took up in a series of other papers in this period.

In 1981, Carlos F. Díaz-Alejandro and I wrote a historical review of international finance and Latin American growth in a paper published as a *Princeton Essays International Finance* in 1982 (Bacha and Díaz-Alejandro, 1982). The tone of this essay reflects an economic and financial outlook for Latin America that is pessimistic relative to repeating the favorable performance of the 1970s, but optimistic relative to catastrophic scenarios. If matters became much worse for major Latin American borrowers than we anticipated (as it turned out to be the case), the paper suggests that schemes for re-funding their debts, as proposed by Fishlow (1978) would become attractive.

For a conference at the Banco de la República in Colombia also in 1982, I wrote a paper making a distinction between the "intensity" and the "style" of the interactions of Latin American countries with international finance (Bacha, 1984c). According to intensity, Argentina, Brazil, and Chile made abundant use of foreign capital; whereas Uruguay and Colombia used it more sparsely. According to style, Brazil and Colombia tended to use foreign capital in a more regulated-form, as a complement to domestic finance. Argentina, Chile, and Uruguay adopted financial liberalization more fully and there a substitution of foreign for domestic savings tended to occur. In the end, only Colombia (which used foreign capital sparsely and under strict controls) was able to avoid the Latin-America debt-collapse of 1982-83.

In 1989, Pedro Malan and I published a review of the Brazilian experience with foreign debt, which led the country from the "economic miracle" of the 1970s to the economic crisis and the IMF-led adjustment programs of the early-1980s (Bacha and Malan, 1989). Separately, in a paper written for the Group of 24 and later reproduced in a 1995 book to honor the memory of Sidney Dell (Bacha, 1995), I drew lessons from the debt crisis for the adoption of international policy measures that might contribute to the sustainability of capital flows to the developing countries.

Part of the suggestions in this last paper originated from a 1987 book that Miguel Rodriguez and I organized for the Permanent Secretariat of the Latin-American Economic

System (SELA), in which we analyzed critically the policy interventions of the World Bank and IMF in Latin America (Bacha and Rodriguez, 1987). In a subsequent paper coauthored with Richard Feinberg (Bacha and Feinberg, 1988), we offered a summary critical analysis of the interventions of the Bank and the Fund in Latin America in the 1980s.

Mention should also be made to a paper that I wrote for the 1987 Basel Conference of the International Economic Association (Bacha, 1988b). In it, I presented some conciliatory suggestions to deal with Latin America's debt overhang. These suggestions are not very distinct from those eventually adopted in the Brady Plan.

The policy adjustments to the debt crisis, particularly the sharp exchange rate devaluations that they entailed, led to a deep fiscal crisis all over Latin American and in Brazil in particular. The exchange rate devaluations sharply raised the burden of the public external debt in local currency terms. The public debt increased further because the government felt compelled to take over part of the private external debt to avoid a generalized bankruptcy of local firms. Time was ripe for new ways of thinking about economic stagnation, fiscal crisis and inflation.

Written at the end of 1988, while I was teaching at Berkeley and Stanford Universities, the "three-gap model" is probably my most widely quoted paper. It was published as the leading article of the April 1990 Journal of Development Economics (Bacha, 1990a). The paper contains a macroeconomic model showing the interplay between the fiscal crisis and the rhythm of economic growth. The critical assumption is that there is complementarity between public and private investment. Thus, when fiscal adjustment imposes a contraction of public investment, the resulting fiscally constrained GDP growth rate may turn out to be lower than that determined by either the foreign exchange or the savings constraints. In a complementary paper, *External debt, net transfers, and growth in developing countries* (Bacha, 1992a), originally written for a G-24 report on the future of the World Bank, I proposed that the relevant concept for an analysis of the foreign contribution to growth was the real net transfer and not foreign savings. The point was that it was the former and not the latter that determined the capacity to import of a developing country. In a less formal analysis, published in Portuguese in 1990 (Bacha, 1990b), I pleaded for a new approach to the external debt crises focused not on foreign-exchange shortages but on government budget shortfalls.

This type of three-gap modeling became the basis for a series of empirical studies on Latin American growth at the Inter-American Development Bank. These were published in the book that I edited in 1993, *Savings and Investment Requirements for Growth Resumption in Latin America* (Bacha, 1993).

For a 1988 international conference in Honolulu, I wrote an empirical analysis of Latin America's economic stagnation since the debt crisis of the early 1980s (Bacha, 1989). I imputed this stagnation to a sequence of structural problems:

- a high level of public sector external debt contracted at floating interest rates;
- economic inwardness, that is, a low level of industrial exports, coupled with high dependence on a handful of primary commodities;
- lack of flexibility in the public sector accounts;
- rigid indexation mechanisms;
- an extreme degree of income concentration.

Effective growth-oriented policies in Latin America, I concluded, would require new institutions to cope with social conflict in a more productive manner than in the past.

In a more historical and multidisciplinary approach, in early 1993 Bolivar Lamounier and I wrote an essay tracing the roots of the difficulties faced by Brazil to implement a reformist growth strategy. The purpose was to replace the inward-looking, inflation-prone, and socially excluding State-led industrialization process that had started in Vargas's *Estado Novo* (1937-45) and reached a climax in the 1964-85 military regime (Lamounier and Bacha, 1964). The paper notes the additional difficulties of making such a transition in the context of the 1988 Constitution, which strengthened the power of special interest groups entrenched in the government bureaucracy. Contrary to prevailing pessimistic conceptions, however, we argued that the most plausible scenario for the 1990s was a convergence between democracy and economic reforms, leading to a more liberal economy, inflation control, and social inclusion. The optimism of the paper was soon vindicated by the successful implementation of the Real plan and the subsequent election of Fernando Henrique Cardoso as Brazil's president.

6.2. Inflation and stabilization policies

Next in line are my papers on inflation and stabilization policies. To review these, I need to go back in time to provide the right flavor on the evolution of my thinking on Brazil's inflationary process.

Back in 1980, I wrote a paper published in Revista Brasileira de Economia (Bacha, 1980b), which was later expanded into a full book (Bacha, 1982b) with the ambitious (but in the end frustrated) purpose of constructing a neo-structuralist inflation-and-growth textbook model. One basic assumption is a classical savings function (according to which only capitalists save because workers' marginal propensity to consume is equal to one). Other basic assumption is that, because of lagged-wage indexation, there is a negative relationship between the inflation rate and the real wage. Comparing two equilibrium positions at full capacity, the equilibrium with a higher investment rate has a higher inflation rate and a lower real wage. The intent here was to describe in a simple model the mechanics of the wage squeeze that accompanied Brazil's 'economic miracle' of the 1970s.

In a subsequent joint paper, Francisco Lopes and I wrote a much more elaborate model for the interactions of inflation, growth and wage policy (Lopes and Bacha, 1983). The paper—published as the leading article of the August-October 1983 issue of the Journal of Development Economics--incorporated the inflation tax in the model. It also provided a rationale developed by Lopes, based on the mechanics of Brazil's wage policy, for the inflation-wage relationship posited in the previous text. The paper argued that orthodox stabilization policies—as exemplified by an autonomous reduction in the rate of monetary growth—implied both a temporary and a permanent decrease in output growth, if the wage formula as in Brazil provided for lagged price indexation.

While I was teaching at Columbia University in 1983-84, a debate raged in Brazil on how to deal with an inflation rate that had reached 200% per year. Gone were the days when the debate was about gradualism versus shock treatment. The question was what kind of cold turkey therapy to apply. Octávio Gouvêa Bulhões proposed an "orthodox shock" to which Francisco Lopes replied with a "heterodox shock". Persio Arida argued for full price-and-wage indexation. Separately, André Lara-Resende and Persio Arida caused furor with a proposal for the introduction of a parallel dollar-indexed currency.

All I could do at the time was to manifest my skepticism with a new fable, *The end of inflation in the Kingdom of Lisarb* (a place where everything worked backwards, including the country's own name) (Bacha, 1985c). The fable consisted of a lively but inconclusive debate among economists of different persuasions on how to fight inflation. At the end of it, Seven, the newly elected king of Lisarb, persuaded himself that, as a social issue, inflation could not be resolved only with mathematics or ingenious formulations. He understood that economics helped but he also became convinced of the importance of his political leadership. Unfortunately, in the real world Tancredo Neves died before taking office and Brazil had to wait another ten years before a new political leader of the same caliber could make use of the talent of local economists to put an end to Brazil's hyperinflation.

In the meantime, from 1986 to 1992 the country went through the Cruzado Plan, of which I participated, plus a series of other failed heterodox inflation-stabilization experiments.

While I was a member of the government economic team and President of the Brazilian Institute of Geography and Statistics (IBGE), from May 1985 to November 1986, I managed to produce a couple of papers on inflation stabilization.

The first was another fable. In *Inflaflução*[3], I used James Tobin's 1981 metaphor comparing inertial inflation to a stadium where everyone stands up to see the spectacle, the problem being how to get people to sit down (Bacha, 1985a). The idea is that there are two equilibria, a bad one with inflation (everyone standing up) and a good one without inflation (everyone sitting down); but people are stuck at the bad equilibrium. I suggested that to solve the collective action problem the referee should stop officiating the game for a moment, and whistle to the audience, thus making everyone sit together at once. Much too easy a solution, as the failure of the February 1986 Cruzado price-and-wage freeze to stop inflation would show. Many unanticipated problems were at play. The main one was the political difficulty of converting wages by their mean values in the previous six-months. The accusation proliferated that the government was practicing a

[3] The term interjects Brazil's foremost soccer competition rivalry-–Fla(mengo) vs Flu(minense)--in the Portuguese word *inflação*.

"wage squeeze", even as the original decree added a bonus of 8% to all converted wages (15% in the case of the minimum wage) and anticipated that they would be readjusted when the post-plan inflation reached 20%.

The generosity of the wage conversion mechanisms plus the end of the inflation-tax (not compensated for by an equivalent reduction in the government deficit) generated a massive excess demand in the economy, which made adjustments to the price freeze inevitable. In a paper written in June 1986, I tried to explain both the merits of the Cruzado plan and the challenges that it faced, but in fact the goods scarcity problems went much deeper than I could publicly recognize (Bacha, 1987b). Moreover, the government decided to postpone a softening of the price-freeze until the November 1986 general elections were over. The decision paid up handsomely politically, but was very disastrous from an economic point of view. When a poorly conceived price-adjustment was finally implemented at the end of 1986 it was too late. The wage trigger was activated and inflation returned at higher rates than before the plan.

Back at PUC-Rio, I received an invitation to give the Master Lecture at the December 1987 Yearly Meeting of the Brazilian Association of Graduate Economic Centers (ANPEC). There I presented my reflections on the policy debates on inflation stabilization in Brazil, based on the failed orthodox and heterodox attempts at inflation stabilization since the early 1980s (Bacha, 1988a). I identified three "schools of thought" on the nature of the inflationary process in the country: monetarism, inertialism, and conflictism. I discussed the concepts of nominal vs. operational public sector debt; expectations vs. inertia; inertia vs. conflict; and active vs. passive money. I argued in favor of a social pact to overcome the distributive conflict; of measures to prevent the monetization of the public debt by the Central Bank; of fighting the public sector deficit while promoting the deindexation of the economy. Future stabilization programs, I concluded, will need to incorporate the lessons of each of three contending schools to be able to make inflation stabilization compatible with democracy and economic growth.

In the same spirit but with a broader scope, there followed a review of the lessons of stabilization programs in developing countries in the 1980s. Co-authored with Dionisio Dias Carneiro, this paper was the basis of a report of the General Secretariat to the United Nations General Assembly in 1991 (Bacha and Carneiro, 1993). It declares in an optimistic mood that there was a reduction of divergences between previously irreconcilable approaches. This professional convergence, the paper argued, was in part a reflection on the failures of extreme versions of both orthodox and heterodox programs. But, in part, it was also a reflection on the successes of experiences that manage to combine orthodox and heterodox components as Israel in 1985 and Mexico in 1987. The paper then discusses a series of new elements that were incorporated to the old debates: shocks vs. gradualism, public sector reform, industrial policy, temporary price controls, and nominal anchors. It concludes with recommendations for the IMF and the World Bank policy-based loans.

My last paper on inflation stabilization previously to the 1994 Real Plan was a Master Lecture at the exams for a full professorship at the Faculty of Economics of the Federal University of Rio de Janeiro (Bacha, 1994). The paper offers a novel approach to the fiscal nature of inflation in Brazil. It argues that inflation was important for the Brazilian government not only for the generation of the inflation-tax but also and perhaps more importantly because it eroded in real terms the expenditures included in the budget. It did this without affecting the tax collection in real terms, because, in contrast to the budgeted expenditures that were fixed in nominal terms, taxes were protected against inflation by the daily readjustments provided by the so-called Fiscal Unit of Reference (UFIR). This would explain the paradox of a very high inflation rate accompanied by a very low primary public sector deficit. This deficit was small only because of the real spending contraction provided by high inflation itself. An implication of the argument was that, to stop inflation, one would first need an alternative mechanism to reduce part of the expenditures authorized in the budget. Since in Brazil nominal spending was legally very rigid implanting this mechanism would require a Constitutional amendment.

In an appendix to this paper, an alternative inflation model is presented. Its dynamics is determined by the fact that most of the relevant money supply is remunerated according to inflation itself. This is an attempt at modeling the "monetary correction" mechanism of the public debt that served as a financial backing for bank deposits. On the assumption that broad money is the determinant of inflation, the paper argues that this remuneration multiplies the effect of the primary deficit on inflation, thus being an alternative explanation of why a small primary deficit could generate such a big inflation. The implication is that inflation might be dealt with by a credible monetary reform program that eliminated the "monetary correction" on the public debt. But credibility was fundamental, for otherwise the result of such an elimination could simply be to lead the economy into an hyperinflation path.

Both the body of the paper and its appendix were relevant ingredients in the formulation of the Real Plan.

6.3. Historical analysis of coffee policy in Brazil

In 1992, I returned to the topic of my Ph.D. dissertation, and wrote a long monograph on the historical role of coffee in the Brazilian economy (Bacha, 1992b). The monograph went over the main events in the 19th Century, but focused on the coffee valorization policy initiated in 1906. The paper details the evolution of this policy throughout the 20th Century, until its demise in 1990 with the closure of the Brazilian Coffee Institute by President Collor´s government.

Novel historical interpretations in this monograph include a revaluation of the behavior of coffee prices in the 19th Century. The paper shows that a fundamental unbalance between the rapid growth of world demand and the slow growth of world supply caused the real price of coffee to follow a secular upward trend from the mid-1840s to the late 1980s. It argues that it was the attraction exerted by such high prices, and not the inflationary consequences of the so-called *Encilhamento* (as argued by Delfim Netto and other historians), that generated a tendency for coffee overproduction in Brazil. This, in turn, made coffee prices crush in the 1890s.

Coffee valorization was introduced in 1906 and, except for an interregnum from the Great Depression to the end of the Korean War, it remained as a permanent feature of Brazilian coffee policy until 1989. The monograph shows that thanks to Brazil's valorization policy, coffee was the only primary product that managed to escape Prebish's curse in the 20th Century. While the real prices of all other commodities trended downward, the opposite occurred to real coffee prices. A graph in the monograph indicates the remarkable fact that the ratio of coffee prices to an index of commodity prices tripled along the 20th Century.

But in the end, the monograph's evaluation of Brazilian coffee valorization policy is very negative. Because of it, coffee remained the country's dominant export product for over 100 years, even as Brazil continuously lost its world market share to other coffee producers. Brazilian goods other than coffee simply could not compete in foreign markets: the dollar price of coffee was too high and the exchange rate too overvalued. The consequence, as Brazil's market share in the world coffee market shrank and the non-tradable sector of the economy expanded, was a dramatic reduction in the ratio of total exports to GDP. This shrank from 20.6% in 1906, when coffee valorization was introduced, to a mere 3.3% in 1964, when coffee finally lost its dominant position in Brazil's exports. Under such a dwindling foreign exchange supply, the so-called national similar policy took over. It essentially meant that products with a national similar could not be imported. Local import substitutes in practice became non-tradable products, and the foreign exchange generated by coffee was reserved for the import needs of this highly protected national industry. An implicit alliance between the interests of coffee growers and local industrialists thus developed which easily defeated the attempts by finance minister José Maria Whitaker at doing away with the coffee valorization policy and the multiple exchange rate system in 1955. This was also the defeat of an export-oriented view of economic growth, and the triumph of the opposite view, that became explicit under President Kubitschek (1956-60), to deepen the import substitution process while maintaining coffee's supremacy in Brazil's export bill.

7. Academic Research Interregnum, 1994-2002

From 1994 to 2002, my academic research became very limited because of my involvement with other activities in the government and the private sector.

The main paper I wrote in this period was an evaluation of the Real Plan. It appeared in several installments starting in 1995 but received final form only in 2003 in a Festschrift volume in honor of Lance Taylor (Bacha, 2003a).

The paper initially describes the political and economic context of the plan's introduction. It then goes over its three phases: the constitutional mechanism for fiscal adjustment, known as the social emergency fund; the device for the unification of the indexation system, known as the unit of real value; and finally, the transformation of this unit into the Real, the new Brazilian currency, in July 1, 1994.

The paper emphasizes that each of the three phases was pre-announced and submitted to the Brazilian Congress for approval. It stresses fundamental characteristics of the plan: de-indexing preceded by full-indexation; sharp stabilization without a price freeze or a debt repudiation; flexible monetary and foreign exchange policies; and absence of economic recession. Contrary to some simplistic interpretations, it stresses that the plan was much more than a mere foreign exchange based stabilization. It also explains how the dollar anchor was used and why a dollarization path was avoided.

It then reports the disequilibrium between aggregate demand and supply generated by the plan, and discusses the policies adopted in 1985-86 for its correction. The paper concludes that the Real Plan was successful in bringing inflation down and keeping it there. But also that, contrary to initial hopes, the stabilization was insufficient to make sustained GDP growth compatible with reasonable external equilibrium.

The topic of external equilibrium came back in a paper that I prepared for a special session on Latin America's external vulnerability at the 2002 Economic Meeting of the National Association of Graduate Centers (ANPEC). This was a paper with reflections—which I dubbed "post-ECLA"—on the evolution of non-traditional economic thinking on inflation and external crisis in Latin America since the Prebisch manifesto of 1949 (Bacha, 2003b).

On inflation, I claimed success. The original structuralist inflation thesis in my generation became the inertial theory of inflation. After we understood the logic of passive (and remunerated) money and the role of fiscal variables, a plan could be implemented—the Real plan—that did away with high inflation in Brazil.

Less success was achieved on the external front. The original ECLA thesis on external vulnerability focused on the fragilities of the so-called primary product exporting stage and favored import substitution industrialization. Such "external strangulation" hypothesis in my generation initially became known as the two-gap model, which favored import substitution and export promotion equally. In the two-gap model, the relationship between exports and investment is positive, because the latter is restricted by the absence of complementary imports. The real problem however was not a physical impediment but the lack of financing. It is in this context that "external strangulation" meets the classical transfer problem. A "sudden stop" of foreign capital inflows imposes the need for a real devaluation so that the negative external transfer may occur. In a context of domestically dollarized debts, this deepens the initial crisis. The model applies well to Argentina, but not so much to Brazil.

In Brazil, dual-equilibrium models with the nature of the equilibrium (good or bad) depending on the expectations of foreign investors on public debt sustainability might be more appropriate. The sensitivity of the nature of equilibrium to foreign investors' expectations is linked to the fact that the domestic currency in unconvertible. Because of this inconvertibility, it does not serve as a reserve of value that could be used as a collateral for real investment. Thus, the country continues to depend on the humor of foreign investors in a modern version of the original "external strangulation" model.

The final paper in this period elaborates on themes parallel to those in the later part of the previous paper. It is an "essay on persuasion" written for a round table discussion with Joseph Stiglitz and Dany Rodrik at BNDES in September 2002 (Bacha, 2002). With the title "from the Washington consensus to the Cambridge dissensus", it starts with the argument that for a critique of the Washington consensus to fructify, the "Cambridge dissensus" of Rodrik and Stiglitz needed an alternative paradigm. This, I sustained, had to start from the concept of a "dollar constraint", which centers on the fact that the return of foreign capital in a developing economy materializes in a local unconvertible currency. A problem then emerges to transfer these monies into hard currency. This transfer problem restricts the capital inflow (as it increases the investment risk) and tends to generate periodic foreign exchange crises.

If the dollar constraint is indeed the main obstacle for sustained growth in emerging markets, the focus of the solution would seem to lie in the sphere of finance. The option to escape the dilemma would be to deepen and further long-term domestic financial markets. But leveraging local finance does not simply mean improving the depth and breadth of local financial markets. “Exportability” of economic output—a concept that I borrowed from Hirshmann--is equally important. At issue is a reduction in external financial vulnerability. This could be achieved by either increased access to local long-term capital markets or an enhanced “exportability” of the economy.

The paper concludes that at issue is not the substitution of domestic savings for foreign savings. On the contrary, the amplification, through exportability, of the country´s international collateral, will allow it safely to hold a higher volume of external debt per unit of output. This will facilitate its access to external savings, as required to accelerate the GDP growth rate through the exploration of local investment opportunities.

8. IEPE/Casa das Garças, 2003-2017

The Institute of Economic Policy Studies/Casa das Garças is a think-tank that economists originally from PUC-Rio and including those that participated in President Cardoso’s government created in 2003. In it, I resumed an active and diversified research activity in economics.

For the inaugural international conference of the institute in December 2003, Persio Arida, André Lara-Resende and I wrote a paper with a new interpretation of why real interest rates remained so high in Brazil (Arida, Bacha, and Lara-Resende, 2005). The fundamental perception was that Brazil did not dollarize, contrary to all other emerging market economies that went through hyperinflationary processes—in both Latin America and Eastern Europe. Dollarization, we argued, was the obvious path for countries that suffered from "jurisdictional uncertainty". We introduced this term to indicate the difficulties face by a local currency to establish itself as a reserve of value in a jurisdictional context in which financial contracts tend not to be honored. The generalized use of Brazil's own money (instead of the dollar) in a context of jurisdictional uncertainty was the reason, we argued, why a local long-term financial market did not prosper and short-term interest rates were so high. We stressed that we were not defending dollarization, for this tended to provoke other maladies as clearly shown by the case of Argentina. Instead, we were making a case for a direct attack on the institutional and legal structures that supported the country's jurisdictional uncertainty.

The paper generated intense debate in Brazil. With Fernando Gonçalves and Marcio Holland, I attempted to test its hypotheses in a panel-based econometric exercise. But we failed to establish a direct link between the real interest rate and variables purporting to measure jurisdictional uncertainty, even after allowing for dollarization (Bacha, Holland, and Gonçalves, 2009a; Bacha, Holland, and Gonçalves, 2009b).

The original paper, however, remained as an important contribution for the debate on high interest rates in Brazil. It was at the origin of 3-book series on Brazil's capital markets that IEPE/Casa das Garças produced between 2005 and 2007 (Bacha and Oliveira-Filho, 2005; Bacha and Oliveira-Filho, 2006; and Pinheiro and Oliveira-Filho, 2007). In these books, economists associated with the Casa das Garças think-tank plus practitioners in Brazil's financial markets analyze the relationships between local capital markets' expansion and Brazil's economic growth; the role of public debt in the (under)development of Brazil's capital markets; and the interaction of government-owned banks (particularly BNDES) and the expansion or lack thereof of Brazil's capital markets. I coedited two of the three books and contributed short-papers or introductory notes expanding on the topics originally developed in the Arida-Bacha-Resende paper. The three-book series became standard references in academic courses in Brazilian universities and were influential in economic policy-making in the country.

A few years later, I returned to these topics in a paper written for a book that I edited with Monica de Bolle to honor the memory of Dionisio Dias Carneiro. In this 2011 paper (Bacha, 2011), I adopted a policy-oriented approach on how to reduce the real interest rate and suggested a sequential program with five sets of measures:

(i) establish a ceiling on the expansion of public sector expenditures and link the public sector banks' credit to the Central Bank's monetary policy stance;
(ii) pledge part of the international reserves as a guarantee of the domestic public debt;
(iii) include price stability among the permanent economic objectives in the Constitution, and define a long-term inflation target;
(iv) create a new regime for the indexation of administered prices based on the long-term inflation target; and
(v) liberalize financial investments abroad.

Besides high interest rates, the other main puzzle of Brazil's economy post-stabilization was why didn't GDP growth resume at higher rates? Regis Bonelli and I tackled this issue in a paper with several installments starting in 2005; the most recent version was published in a 2016 Festschrift volume in honor of Roberto Frenkel (Bacha and Bonelli, 2016).

The paper is an empirical investigation of the reasons for the collapse of GDP growth rates starting in 1981. This is initially associated with a simultaneous collapse in capital accumulation, or the net fixed investment rate. The paper develops a new formula that splits the net fixed investment rate into four components (besides the capital depreciation rate): the savings rate, the ratio between the implicit deflator of investment and the implicit deflator of GDP, the degree of capital utilization, and the output to capital in use ratio.

Based on this decomposition, a first conclusion emerges from an analysis of the national accounts: contrary to expectations, only a very small part of the collapse of capital accumulation can be imputed to a reduction in the savings rate—as this remained practically constant in the periods pre- and post-1980. The culprit of the collapse is a sharp rise in the relative price of investment. Equally important is a rise in the capital (in use)-to-output ratio. his second phenomenon may be explained by an increased complexity of the Brazilian economy. But an empirical analysis suggests that the increase in the relative price of investment had its roots in an inefficient substitution of domestic for foreign capital goods and in a slow pace of productivity growth of the domestic construction industry.

Rapid GDP growth resumption, however, continued to be an unresolved issue. In a new “essay in persuasion” (Bacha, 2013), I argued that an unrecognized part of the problem lied in the reduced participation of foreign trade in the country’s economy. And pleaded for the introduction of a three-pronged policy program—namely, a reduction of the so-called Brazil’s cost; the substitution of foreign-exchange protection for tariff protection; and international trade deals—as a basis for the incorporation of the country’s economy into the global value chains.

A critique to this proposal is that opening-up had not been sufficient to make Mexico prosper. Regis Bonelli and I took up this issue in another paper, with a historical comparison of the economic growth experiences of Brazil and Mexico (Bacha and Bonelli, 2016). In this paper, both macroeconomic and structural variables are taken into consideration. We showed that the traded-goods sector did much better in Mexico than in Brazil. However, this dynamism did not propagate to the non-traded-sector, the productivity of which grew much more slowly than in Brazil. We concluded that, besides foreign trade integration, domestic social and regional integration was a necessary ingredient for growth to resume in large economies such as Brazil and Mexico.

Besides slow growth, Brazil also suffered from "deindustrialization" particularly in the first decade of the 21st Century. This topic was the object of series of seminars at Casa das Garças, leading to a book-length study that I edited with Monica de Bolle, on the future of industry in Brazil. In 2014, it received the prestigious Jabuti award as the best book in economics of the year. For this book, I wrote a paper arguing that external variables—the commodity boom and a high influx of foreign capital—had been the determinants of the country´s deindustrialization in the 2005-2011 period (Bacha, 2013). Domestic policy-related variables such as exchange rate and monetary policies had at most a supporting role. I documented these empirical propositions with the use of a simple accounting and modelling framework.

The commodity boom itself was the object of a paper that I wrote with Albert Fishlow for *The Oxford Handbook on Latin American Economics* (Bacha and Fishlow, 2011). The first part of the paper is a review of the literature on the so-called natural resource curse and the Dutch disease. We found only a limited but perhaps obvious consensus in the literature that institutions mattered. In the second part of the paper, we reviewed the experiences of Argentina, Brazil, Chile, and Venezuela with the management of its natural resources. We found a complex set of policies, with Chile giving the best lessons and Venezuela the worst; Brazil feeling its way particularly with the newly found oil riches; and Argentina unable to overcome economic volatility. The unsurprising conclusion was that policies also mattered.

The last paper in this long journey is the introduction that I wrote with Simon Schwartzman for the book we edited on a new social agenda for Brazil (Bacha and Schwartzman, 2011). We found that Brazil spends with so-called social policies similar values as those of richer economies, such as the UK or the USA. Notwithstanding, the results of these policies in terms of population welfare are nowhere to be found. Moreover, although the coverage of these policies has improved a lot—all children are now in schools, for example—the quality of this coverage is very bad. We identified that Brazil's population will go through a very rapid aging process in the first half of this century. Consequently, the required social policies will be not only more complex but also more expensive. We then summarized the lessons of the book chapters to deal with such challenges in the fields of health, social security, social assistance, education, and public security. Characteristics of this new social agenda are fairness, with the poor having privilege of access to social security; realism, with an explicit recognition of the overall government budget constraint; and effectiveness, with a responsible and consequential management of public resources.

REFERENCES

Ahluwalia, M. and H. Chenery. Appendix to Chapter 1 of H. Chenery et al., Redistribution with Growth. Oxford University Press, 1974.

Arida, P.; E. Bacha; A. Lara-Resende. “Credit, interest, and jurisdictional uncertainty: conjectures on the case of Brazil”. In: F. Giavazzi, I. Goldfajn and S. Herrera (eds.), Inflation Targeting, Debt, and the Brazilian Experience, 1999 to 2003. Cambridge, MA: MIT Press, 2005: 265-93.

Bacha, E. "Comparación entre la productividad industrial de México y los Estados Unidos", El Trimestre Económico n. 132, 33(4), Oct.-Dec. 1966: 657-74.

_______. An Econometric Model for the World Coffee Economy: The Impact of Brazilian Price Policy. Ann Harbor: University Microfilms Library Services. Microfilm. (Doctoral Dissertation Series) @ Edmar Lisboa Bacha; 31Jul69; A96261.

______."O subemprego, o custo social da mão de obra e a estratégia brasileira de crescimento”. Revista Brasileira de Economia, 26(1), Jan.-Mar. 1972: 105-16

______."Preference for industry and trade policy in an industrializing country”. In: R. Eckaus e P. N. Rosenstein Rodan (orgs.), Analysis of Development Problems. Amsterdam: North Holland, 1973: 269-91.

_____."Hierarquia e remuneração gerencial", Estudos Econômicos, 4(1), 1974: 143-75. Reproduced in E. Bacha, Mitos de uma Década. Rio de Janeiro: Paz e Terra, 1976: 107-34.

_____."O Rei da Belíndia, o economista visitante e o produto interno bruto", Opinião (Rio de Janeiro), 19 August 1974: 14-5. Revised version in E. Bacha, Belíndia 2.0. Rio de Janeiro: Civilização Brasileira: 33-38.

_____."Case studies in the estimation of national economic parameters in less developed countries". In: R. Berney; H.

Schwartz (eds.), Social and Economic Dimensions of Project Evaluation. Washington DC: Interamerican Development Bank, 1977.

_____."An interpretation of unequal exchange from Prebisch-Singer to Emmanuel", Journal of Development Economics, 5(4), Dec. 1978: 319-30. Version in Spanish with a new appendix in Edmar Bacha, El Milagro y la Crisis. FCE, 1986: 360-373.

_____."The Kuznets curve and beyond: growth and changes in inequalities". In: E. Malinvaud (ed.), Economic Growth and Resources. Vol. I. The Major Issues (Proceedings of the 5th World Congress of the International Economic Association, Tokyo, 8/28-9/4/1977.) Macmillan, 1979.

_____."Industrialization and agricultural development". In: J. Cody; H. Hughes; D. Wall (eds.), Policies for Industrial Progress in Developing Countries. Oxford University Press, 1980a. Reproduced in G. M. Meyer (ed.), Leading Issues in Economic Development, 6th. ed., Oxford U. Press, 1996: 385-89.

_____. “Notas sobre inflação e crescimento”. Revista Brasileira de Economia, 34 (4), Oct./Dec. 1980b: 541-555.

_____. “Economic growth, urban and rural wages: the case of Brazil”. In: S. Teitel; M. Syrquin (eds.), Trade, Stability, Technology, and Equity in Latin America. Academic Press, 1982a: 449-72.

_____. Análise Macroeconômica: um Texto Intermediário. Rio de Janeiro: IPEA, 1982b.

_____. "Vicissitudes of recent stabilization attempts in Brazil and the IMF alternative". In: J. Williamson (ed.), IMF Conditionality. Washington, DC: Institute for International Economics/MIT Press, 1983a: 323-40.

_____. "The IMF and the prospects for adjustment in Brazil". In: J. Williamson (ed.), Prospects for Adjustment in Argentina, Brazil, and Mexico. Washington DC: Institute for International Economics/ MIT Press, 1983b: 323-40.

_____. "A critique of Southern Cone monetarism", International Social Science Journal (UNESCO), 35(3), 1983c: 412-24.

_____. "Economic growth with limited supplies of foreign exchange: a reappraisal of the two gap model". In: M. Syrquin; L. Taylor; L. Westphal (eds.), Economic Structure and Performance - Essays in Honor of Hollis B. Chenery. New York: Academic Press, 1984a.

_____. "Brazil and the IMF: Prologue for the Third Letter of Intent. Industry and Development (UNIDO), 12, Jun. 1984b: 101-13.

_____."Complementación vs integración: estilos latinoamericanos de apertura financeira al exterior". In: J. A. Ocampo (ed.), La Política Económica en la Encrucijada. Bogotá: Banco de la República/Editorial Presencia, 1984c: 77-95.

_____. "O fim da inflação no reino de Lisarb", Revista de Economia Política, 5(1), Jan.-Mar. 1985a: 126-43.

_____. "Contabilidade dos choques externos: o caso da América Latina, 1978-1982". Pesquisa e Planejamento Econômico, 15(2), Aug. 1985b.

_____. "Inflaflução: os preços em alta no país do futebol", Nova Imagem (IBGE), no. 1, Nov. 1985c. Reproduced in E. Bacha, Belíndia 2.0. Civilização Brasileira, 2013: 51-54.

_____. "External shocks and growth prospects: the case of Brazil, 1973-89". World Development, 14(8), Aug. 1986: 919-36

______. The Role of the IMF in Adjustment with Growth (como membro do grupo de trabalho do Grupo dos 24). Washington, DC: Inter-governmental Group of 24 on International Monetary Affairs, 25 March 1987a. Reproduced in IMF Survey [Supplement on the Group of 24 Deputies' Report], 10 August 1987.

____. "La inercia y el conflicto: el Plan Cruzado y sus desafíos". Estudios Económicos (El Colegio de México), special issue, Oct. 1987b: 167-86. [Original version in portuguese: Texto para Discussão n. 131, Departamento de Economia, PUC/RJ, Jul. 1986].

_____. "IMF conditionality: conceptual problems and policy alternatives", World Development, 15(12), 1987c: 1457-67.

_____. "Moeda, inércia e conflito: reflexões sobre políticas de estabilização no Brasil", Pesquisa e Planejamento Econômico, 18(1), abril 1988a: 1-16.

_____. "Escaping confrontation: Latin America's debt crisis in the late 1980s". In: Silvio Borner (ed.), International Finance and Trade in a Polycentric World. Proceedings of a Conference Held in Basel by the International Economic Association. Macmillan, 1988b: 38-51.

_____. "Economic trends in Latin America". In: S. Naya; M. Urrutia,; S. Mark; A. Fuentes (eds.), Lessons in Development: A Comparative Study of Asia and Latin America. San Francisco: International Center for Economic Growth. Distributed by Kampmann National Book Network (Lanham, Maryland), 1989: 39-51.

_____. "A three gap model of foreign transfers and the GDP growth rate in developing countries". Journal of Development Economics, 32(2), April 1990a: 279-96.

_____."O fisco e as divisas: um novo enfoque para a dívida externa". Nova Economia (FACE/UFMG, Belo Horizonte, MG), 1(1), Nov. 1990b: 37-49.

_____. "External debt, net transfers, and growth in developing countries", World Development, 20(8), Aug. 1992a: 1183-92.

_____. "Brazilian coffee policy: a centennial evaluation". In: E. Bacha; R. Greenhill, 150 Years of Coffee. Rio de Janeiro: Salamandra/Marcellino Martins and E. Johnston Exportadores Ltda., 1992b.

_____. (org.). Savings and Investment Requirements for Growth Resumption in Latin America. Washington, DC: IDB, 1993.

_____. "O fisco e a inflação: uma interpretação do caso brasileiro", Revista de Economia Polìtica,/53, 14(1), Jan./Mar. 1994: 5-17.

“Selected international policy issues on private market financing for developing countries". In: G. Helleiner, E. Bacha, S. Abrahamiam, R. Lawrence, P. Malan (eds.), Poverty, Prosperity and the World Economy: Essays in Memory of Sidney Dell. New York: St. Martin Press, 1995: 167-84.

_____. “Do Consenso de Washington ao Dissenso de Cambridge”, em Ana Celia Castro (org.), Desenvolvimento em Debate: Novos Rumos do Desenvolvimento no Mundo. Rio de Janeiro: Mauad: BNDES, 2002: 359-65. English version: “From the Washington Consensus to the Cambridge Dissensus”. unpublished, available from the author.

_____ ."Brazil's *Plano Real*: a view from the inside". In: A. K. Dutt and Jaime Ros (eds.), Development Economics and Structuralist Macroeconomics: Essays in Honor of Lance Taylor. Edgar Elgar Publishing Ltd., 2003a: 181-205.

_____. “Reflexões pós-cepalinas sobre inflação e crise externa”. Revista de Economia Política 23(3), n. 91, Jul.-Sept. 2003b: 143-50.

_____ “Além da Tríade: Como Reduzir os Juros?”. In: E. Bacha e M. de Bolle (orgs.), Novos Dilemas da Política Econômica: Ensaios em Homenagem a Dionisio Dias Carneiro. Rio de Janeiro: LTC, 2011: 130-139.

_____ “Bonança externa e desindustrialização: uma análise do período 2005-2011”. In: E. Bacha e M. B. de Bolle (orgs.), O Futuro da Indústria no Brasil: Desindustrialização em Debate. Rio de Janeiro: Civilização Brasileira, 2013: 97-120.

_____ “Integrar para crescer: o Brasil e a economia mundial”. In: João Paulo dos Reis Velloso (ed.), Visão de Brasil: Estratégia de

Desenvolvimento Industrial. Rio de Janeiro: Forum Nacional, 2013: 47-66.

Bacha, E.; A. B. Araujo; M. da Mata; R. Modenesi. Análise Governamental de Projetos de Investimento no Brasil. Rio de Janeiro: IPEA, Relatório de Pesquisa n. 1, 1971 (3rd. ed. 1974).

Bacha E.; P. Arida. "Balance of payments: a disequilibrium analysis for semi-industrialized economies", Journal of Development Economics, 27, 1987: 85-108. Reproduced in em P. Bardhan, J. Behrman, A. Fishlow (eds.), International Trade, Investment, Macro Policies and History: Essays in Memory of Carlos F. Díaz-Alejandro. North Holland, 1987: 85-108.

Bacha, E.; R. Bonelli. “Accounting for the rise and fall of Brazil’s growth after World War II”. In: Mario Damill, Martin Rapetti, Guillermo Rozenwurcel (eds.), Macroeconomics and Development: Roberto Frenkel and the Economics of Latin America. New York: Columbia University Press, 2016: 188-207.

______. “Coincident growth collapses: Brazil and Mexico after the 1980s”. Novos Estudos CEBRAP, Edition n. 105, Jul. 2016: 151-181.

Bacha, E.; D. D. Carneiro. "Stabilization policies in developing countries: old truths and new elements". In: P. Bardhan, M. Dutta-Chaudhuri, T. N. Krishnan (eds.), Development and Change: Essays in Honour of K. N. Raj. New Dehli: OUP, 1993.

Bacha, E.; D. D. Carneiro; L. Taylor. "Sraffa and classical economics: fundamental equilibrium relationships". Metroeconomica, 29, 1977: 39-53.

Bacha, E.; C.F. Diaz-Alejandro. "International financial intermediation: a long and tropical view”. Princeton Essays in International Finance n. 147, May 1982: 133-51.

Bacha E.; R. Feinberg. "When supply and demand don't intersect: Latin America and the Bretton Woods institutions in the 1980s" (com Richard Feinberg), Development and Change, 19(3), Jul. 1988: 371-400.

Bacha E.; A. Fishlow. “Recent commodity price boom and Latin American growth: more than new bottles for an old wine?” (com A. Fishlow). In: J. A. Ocampo e Jaime Ros (eds.), The Oxford Latin America Economics Handbook. OUP, 2011: 394-410.

Bacha, E.; Holland, M.; Gonçalves, F. M. “Risk, dollarization, and interest rates in emerging markets: a panel-based approach”. World Bank Economic Review, 2009; 23(1): 101 – 117.

_____. “A panel-data analysis of interest rates and dollarization in Brazil”. Revista Brasileira de Economia, 63(4), 2009: 341-360.

Bacha, E.; P. Malan. "Brazil's debt: from the Miracle to the Fund". In: A. Stepan (ed.), Democratizing Brazil: Problems of Transition and Consolidation. Oxford U. Press, 1989: 120-40.

Bacha, E.; M. Matta."Emprego e salários na indústria de transformação, 1949/1969". Pesquisa e Planejamento Econômico, 3(2), 1973: 303-40.

Bacha, E.; Oliveira-Filho, L.C. Mercado de Capitais e Crescimento Econômico. Rio de Janeiro: ContraCapa, 2005.

________. Mercado de Capitais e Dívida Pública. Rio de Janeiro: ContraCapa, 2006.

E. Bacha; M. Rodriguez (eds.), Recessão ou Crescimento: o FMI e o Banco Mundial na América Latina. Paz e Terra, 1987.

Bacha, E.; S. Schwartzman. “Introdução”. In: E. Bacha; S. Schwartzman, Brasil: A Nova Agenda Social. Rio de Janeiro: LTC Editores, 2011: 1-20.

Bacha, E.; L. Taylor. "Foreign exchange shadow prices: a critical evaluation of current theories". Quarterly Journal of Economics, 85(2), May 1971: 197-224.

______. "Brazilian income distribution in the 1960s: 'facts', model results and the controversy". Journal of Development Studies 14(3), Apr. 1978: 271-97.

Fishlow, A. “A new international economic order: what kind?”. In A. Fishlow et al., Rich and Poor Nations in the World Economy. New York: McGraw-Hill, 1978.

Lamounier, B.; E. Bacha. “Redemocratization and economic reform in Brazil”. In: J. Nelson (ed.), A Precarious Balance: Democracy and Economic Reforms in Latin America. Volume II. San Francisco, CA: International Center for Economic Growth and Overseas Development Council, 1994: 143-85.

Lopes, F.; E. Bacha. "Inflation, growth and wage policy: a Brazilian perspective". Journal of Development Economics, 13(1-2), Aug./Oct. 1983: 1-20.

Pinheiro, A. C.; Oliveira-Filho, L.C. Mercado de Capitais e Bancos Públicos. Rio de Janeiro: ContraCapa, 2007.

Tobin, James. “Diagnosing inflation: a taxonomy”. In: M. Flanders, A. Razin (eds.), Development in an Inflationary World. New York: Academic Press: 19-30.