An analytical study of the pricing policy of agricultural crops in the Arab Republic of Egypt

The price policy is considered an important part ofeconomic policy as well as the agricultural policy. It aims atreduce fluctuations of prices and incomes, and to insure necessaryproduction for local consumption and export.The agricultural price policy in Egypt can be considered a partial policy where it deals with every crop separately.Such policy depends on a full cost production approach in determiningthe farm prices. The fdna prices is equal to the totalcost plus the rent value of land and discounting the value ofthe by-products, then it divided by the crop yield. This methodneglect the demand side and its remarkable effects on farmprices.The price policy is its preceeding approach leads todisequilibrium between the local and world prices, The farmprices donlt interact with the rate of inflation in the Egyptianeconomy which amount to 16 percent. The policy contribute infarmers evasion from planting the required crops that are plannedby the Ministry of Agriculture and from delivering the quotasto state preferring to pay the fines.This study aims at analyze the Egyptian agriculturalprice policy and measure the economic effects of the governmentalintervention in agricultural pricing on producers and consumerswelfare and on the government revenue. The study also aims atrecognize the effect of alternative pricing policies on allocatingthe agricultural resources.The study contains five chapters beside the introductionand summary, the first chapter dea1s ~ith the re1atiOnshipbetween agriculture and the economy, the second chapter concernedwith the historical evolution of agricultural price policy duringthe period (1914-86, while the third chapter concentrates onthe different pricing a1ternatives, the fourth chapter care ofthe economic effects of the governmental intervention in theagricu1tural price policy, finally the fifth chapter examine therole of agricultural prices in directing the agricultural production.fqriclllture and the econo~Y:This part examined the relative importance of agriculturein the economy, the study showed that the agriculture's shar.of national income decreased from 32 percent in (1976/68) to 19percent in (1983/84). The agricultural employment has also decreasedfrom 50 percent in (1967/681 to 34 percent in 1983/84 ofthe total employment. As for foriegn trade, agricultural exportscomprised about 77 percent of that total exports in 1968 andabout 20 percent in 1983, ~hile agricultura1 imports reached22.4 percent and about 10.5 percent of the total imports in 1968and 1983 respectivelY. As for agricultural expenditures, thestudy indicated that the agriculture's has decreased from 6.5percent of tota1 current expenditures in 1970/71) to 3.5 percentof that total in (1986/87, The ~ages represented about 39 and.78 percent of agricultural current expenditures in 1970/71 and(1986/87 respectively, but the share of agriculture amountedto 6.5 percent of total capital expenditures in (1970/71) and7.7 percent of that total in (1966/87). The expenditures elasticityof agriculture reached about 0.77 and 0.59. computed incurrent prices-by using linear and log mathematical models respectively,but reached about 1.2 as a capital expenditure byusing the same models. The study showed that the agriculturalsubsidy represented about 11 percent of the total subsidies asaverage during the period (1970/71-1986/67). By using leontief'stable, the stud~ indicated that the value of agricultural inputsis estimated at L.E 1620 millions while the value of agriculturaloutputs amounted to L.E. 6407 millions and the added-value foragricultural sector amounted to L.E. 4578 millions.The historical evolution of a ricultural olicy:The study showed that the price policy for agriculturalcrops has passed three stages; the first stage is from 1914 to1952, in this stage the farm prices has strong; fluctuations andthere was no determined agricultural price

policy. The economicpolicy contained some legislations to put upper limit on thecultivated area of cotton to prevent it prices from depression,and to put lower limit on the cultivated area of cereals, especiallywheat and barely, to satisfy a part of domestic consumptionparticularly during the world wars. Other legislationsaimed at determining prices of some consumption goods. Thesecond stage is from 1952 to 1962, in this period cotton pricesdecreased and the inventory increased, therefore the governmentcontinued to put upper limit on the cultivated area and canceledthe contracters stock ~arket in Alexanderia during the period of(1952-55). The Egyptian committee for cotton bought and soldcotton in this period, in 1955 the Contracters Stock Market reopeneduntil 1961 where it canceled again. The third stage isfrom 1962 to 1986 where the Cooperative system was applied.According to this system cooperative production quotas (differfrom one crop to another) are handled to the state at fixed priceAS for the price policy for agricultural inputs, thestudy showed that starting from 1964 all production, importationand distribution of fertilizers are controlled by the state. Theministry of agriculture determines the fertilizer distributionrates for all regions and crops at prices lower than the actualcosts, these prices are equal acrosS all areas. The state has fulcontrol of distributing cotton and soy beans seeds, and partialcontrol on wheat, rice seeds. Maize, vegetable and fruit seedsbelong to private sector, the price of distributed seeds by thestate is slightly below actual cost. Finally as to pesticides,thEgovernmental intervention started in 1961, that state distributethe pesticides according to actual cost, in the same time subsidizecotton, onions, soy beans pesticides.The different a roaches for determination the farm rices:This chapter examine the different approaches determinirprices of cotton, wheat, maize, rice, broad beans, lentils, grournuts, sesame, suger cane and winter onions during the period(1968-84). The study indicated that the actual farm prices areless than the calculated prices by the parity price formulas thatused the ratio between the index number for cost of living and tlindex number for wholesale prices. The study has also indicatedthat the actual farm prices for the main crops (cotton, wheat,maize, rice) are less than the calculated prices by using mostof the alternative methods. The correlation between the rate ofinflation and the rate of increasing in actual and calculatedprices amounted to 0.77 for the calculated prices using the parityprice formula-that used the index number for cost of living,this means that the actual prices don’t reflect the rate ofinflation in the Egyptian economy. The study also showed thatthe terms of trade for agricultural crops by using the ratio offarm prices to costs per unit and to world prices has decreasedspecially after the open door policy that has been applied since1974The economic effects of overnmental intervention in a riculturalpolicyThis chapter aims at investigate the impacts of governmentalintervention on producers, consumers and state for wheat,maizrice, cotton, broad beans, lentils, sugar cane and winter onionsduring the period of 1976-83. The study showed that the net socieloss amounted to L.E. 220.5,26.1, 216.7, 137.6, 6.5, 7.33,81.4and 87.8 millions for the eight crops respectively as a lower1imit, and L.E . 337. 3, 48.6, 264. 1, 137 .6, 11.5, 7. 33, 127 .2and 140.5 millions annually for the same crops respectively as trupper limit. Loss in producers welfare totaled L.E.177.8,130.2,425.1,542.5, 28.5, 1.7, 177 and 186.1 millions annually for thesame crops as a lower limit compared to L.E. 189.4, 148.5,450.8,542.5, 28.5, 1.7, 209 and 234.3 millions as the upper limit,consumer welfar has increased by about L.E. 325.2, 102.6, 147.1,___ 193~},_ 14.9, 9.6, 45.4 and 41.9 millions annually for the same- 6 -eight crops respectively as a lower limit compared to L.E.430.5, 106.6, 168.9, 193.7, 19.9, 9.6, 59.1 and 45.9 millions forthe same crops as the upper limit. Meanwhile the loss in foriegnexchange reached about L.E. 622, 196.6, and 233.6 millions annually as a lower limit compared toL.E. 958, 209.9, and 36.9 millionsas the upper limit for the eight crops respectively. Whilethe government revenue has increased for rice, cotton, broadbeans, sugar cane and winter onions. It amounted to L.E. 12.6,211.2, 2, 36.6 and 52.1 millions for these five crops respectively,and has decreased for wheat, maize and lentils amounting toL.E. 473, 11.5 and 15.4 millions respectively. This means thatthe agricultural policy is a discriminative in favor of consumersagainst producers and that the agricultural sector is heavilytaxed.A ricultural rices and their effects in directin theagricultural productionThis section of the study deal with the impact of pricingalternative methods on cropping pattern. Six models of linearprogramming were constructed, the first model used the worldprices with absence of the organizatory constraints, the secondand third models used the local and world prices respectivelywith maximum constraints for the cultivated

area of crops of higtnet revenue (sesame, tomatoes, potatoes, groundnuts, lentilswinter onions, long barseem), the fourth and fifth models usedthe local and world prices respectively with minimum constraintsfor the cultivated area by traditional crops to insure total orsome of local consumption,and the sixth model used world pricesfoe strategic crops (cotton, rice, ~heat) and local prices forthe other crops ~ith maximum constraints for cultivated area byhigh net revenue crops and minimum constraints for cultivatedarea by traditional crops.The resultS showed that the net revenue amounted to L.E.23039, 1759, 2428, 2068, 5205 and 1889 millions for the six modelsrespectively compared to about L.E. 1404 millions for the actualcropping pattern. ThiS means that the use of agricultural inputs~ere inefficient, and also means that the net revenue by using~orld price is greater than the net revenue by using local prices.The difference bet~een them amounted to L.E. 670 millions in caseof maximum constraints and L.E. 3134 millions in case of minimumconstraints, the study also sho~ed that the strategic crops ~erelesS profitability and consequently were lesS comparative advantage,SO the farmers don't have the desire to plant these crops.The study recommends that the governmental interventionin planning and regulating the agricultural sector should continuEto achieve the targets of national plans in completely agriculturalprice policy taking intO its consideration both ~orldprices and rate of inflation beside cost production in order todetermine the farm prices. It should separate consumer andindustry. subsidy from produceEs pEices in order to reducethe implicit taxes that imposed on agriculture. The governmentshould increase the relative profitability for strategic cropsto encourage farmers to plant these crops. It also should redeterminethe delivery quotas to the state specially for riceand takes both farm size and cultivated area into considecation.