THE PURCHASING POWER OF MINIMUM WAGES AS AN INDICATOR OF WELFARE AND THE FOOD SITUATION. Laure, J. INCAP, Institute of Nutrition of Central America and Panama, P.O. 1188, Guatemala, Guatemala, C.A.; ORSTOM, French Institute of Scientific Research for Development and Cooperation, Paris, France.

This paper presents the prices for goods and services calculated in terms of "work-hours", the number of hours that a person who earns the minimum wage would have to work in order to earn the equivalent of the price of a particular amount of a given good or service. This method of expressing prices avoids the problems associated with changes over time in the intrinsic value, ie. with inflation.

This simple yet effective method can be used to evaluate changes in the purchasing power of the minimum wages for both food and general items, to compare situations in different countries, and to formulate and monitor a wage and salary policy which is aimed at improving the welfare and particularly, the food situation of those living on minimum wage.

Examples are given from Africa, Europe and Latin America.

INTRODUCTION

There are two principle means of access to food:

1. Subsistence production. This is the non-monetary means of access to food for numerous populations which subsist on their own agriculture and harvests.

2. Purchasing food. In this case, the level of monetary revenues determines the access to goods and services, including food.

In many countries, especially those of the Third World, the majority of workers in both the informal and formal sectors have monetary incomes close the minimum wage.

INDICATORS OF PRICES AND PURCHASING POWER

Regardless of the currency, the value of money varies over time due to changes in monetary units, inflation and reevaluation. For this reason, money is not a good instrument with which to measure changes in prices of goods and services. In reality, what interests an individual is what he can buy with his income. In this paper, we express prices in terms of work-hours, the number of

hours one would have to work at the level of the minimum wage of a reference salary, in order to pay for a particular good or service.

In the case of food, prices are calculated in terms of physical quantities such as kilograms or pounds, and for conventional quantities of dietary energy: 1000 kilocalories, and 100 grams of protein.

Expressing purchasing power of goods and services in terms of work-hours is also useful because it facilitates comparisons across time and between different locations.

As an indicator, purchasing power expressed in terms of minimum wages is possible in nearly all countries of the world since minimum wages, records of retail prices and consumer price indices are almost universally available.

EXAMPLES OF PRICES

In Figure 1, prices in current money, the Costarican Colon, are shown for three basic foods: rice, beans and bread, at San Jose, Costa Rica, between 1952 and 1989. One can observe a certain degree of stability in the prices in Colons, between 1952 and 1972. Thereafter, there is a moderate increase which steepens towards the end of the study period. This form of expressing prices gives little information on the prices themselves. Rather, it provides an insight into the intrinsic evolution of the Costarican Colon itself.

Figure 2 presents the prices of the same foods but expressed in terms of work-hours paid at the level of the "protection" minimum wage, the lowest wage which can be paid in Costa Rica. Presented in this fashion, the pattern of evolution in prices is totally different. It begins with a tendency to decrease rapidly during the first years of the period, and then slightly slower later on. This real decrease in prices reflects a real increase in the purchasing power of the minimum wage which, in fact, was multiplied by a factor of four or five, with respect to these three products.

EXAMPLE OF THE EVOLUTION IN PURCHASING POWER OF MINIMUM WAGES

Figure 3 presents the evolution, in percentages, of food purchasing power of official minimum wages in three capital cities of Central America.

In San Salvador, the food purchasing power of the official minimum urban wage (MUW) remained fairly stable between 1961 and 1980, after which time it decreased by 70% during the civil war.

In Managua, the purchasing power of the official minimum industrial wage (MIW) diminished by 99% between 1972 and 1989. It is perhaps important to mention here the two factors which prevented these workers and their families from dying of hunger. First of all, several basic food items were made available at highly subsidized prices. The second factors was the availability of American dollars sent from immigrants and those enroled in the "Contras", and changed on the black market at a favourable rate.

Finally, since the civil war of 1948 in San Jose, Costa Rica, the food purchasing power of the official "protection" minimum wage (PMW) has more than quadrupled in the last four decades.

COMPARISON OF FOOD PRICES IN TERMS OF DIETARY ENERGY AND PROTEIN

In order to permit comparing different foods, their prices may be calculated in terms of how many work-hours are necessary to obtain a given amount of dietary energy, for example, 1000 kilocalories, and other nutrients such as 100 grams of protein.

In Figure 4, retail prices are given in terms of work-hours paid at the official minimum urban wage for four of the least expensive foods in Guatemala City. These foods are grain maize, sugar, beans and rice.

In Figure 5, retail prices are given in terms of work-hours paid at the minimum industrial salary for four of the least expensive protein sources found in Tegucigalpa, Honduras. These four foods are grain maize, beans, imported wheat flour and beef liver.

COMPARISONS BETWEEN COUNTRIES

As previously mentioned, it is difficult to compare prices between different cities and countries. Figure 6 presents the price of sugar, a national product which is consistently the least or one of the very least expensive dietary sources of energy in the different countries of Central America. Just with this one figure, we can already begin to get an idea of the difference in purchasing power of minimum wages in the different Central American cities. For example, around 1990, the situation is most favourable in Belize City and San Jose, Costa Rica, moderately acceptable in Guatemala City, Tegucigalpa and San Salvador and quite frankly, bad, in Managua, Nicaragua.

Figure 7 presents prices in terms of work-hours paid at the minimum wage for the least expensive sources of dietary energy available in various places in the world. During the 1970s, prices at Bujumbura and Kigali were comparable and both very high. At the

minimum wage, one would have to work between 1/2 and 1 ½ hours to earn enough to buy 1000 kilocalories of the least expensive food energy source. These cities are capitals of two of the poorest countries in the world, Burundi and Rwanda, respectively.

In France, the price of 1000 kilocalories worth of bread is less than what one would earn in 1/10 of an hour, paid at the minimum wage.

In cities as different as Guatemala in Central America, Rabat in Morocco and La Paz in Bolivia, minimum wages have practically the same purchasing power. Paid at the minimum wage, one would have to work about 15 minutes in order to earn enough to buy 1000 kilocalories of the least expensive source of dietary energy.

DECREASES IN REAL PRICES IN DEVELOPING COUNTRIES

In more developed countries, real prices expressed in terms of work-hours, have tended to decrease.
Examples of this are seen in France from 1870 onwards, in Belize City especially after the second world war, and in San Jose, Costa Rica beginning after the end of the civil war. This decrease in real prices is due to two main factors. First of all, it is due to an increase in overall standard of living, particularly of that associated with minimum wages. Secondly, to an increase in productivity, especially in agriculture.

The phenomena of a secular decrease in real prices is not found in many developing countries. In contrast, increases in real prices are more often seen, especially since structural adjustment policies have been put into effect. Such policies almost always have as a consequence a decrease in purchasing power, especially of that associated with minimum wages.

SOME SIMPLE, BASIC RECOMMENDATIONS

As its name indicates, the minimum wage should permit the attainment of basic needs of the wage earner and his or her family, for food as well as health, education, housing, etc.

Unfortunately, in many countries, the actual amounts of minimum wages do not permit even the attainment of the basic needs for food, let alone anything else.

CONCLUSIONS

INCAP (Valverde et al., 1985) has clearly demonstrated that when the minimum wage of coffee workers in Guatemala was nearly tripled from Q.1.04 to Q.3.20 per day in 1980, malnutrition amongst

the children of these coffee workers decreased to a statistically significant extent.

In general, the purchasing power of minimum wages is a sensitive indicator of well-being, particularly with respect to food.

If the purchasing power of minimum wages increases, it is sure that the quality of life, and the food and nutrition situation of the population will improve. By the same token, if the purchasing power of minimum wages decreases, it is just as certain that the quality of life as well as the food and nutrition conditions of the population will rapidly degenerate.

In conclusion, this simple yet sensitive indicator permits rapid measurement of the impact of economic measures related to wages in general, and particularly, minimum wages.

BIBLIOGRAPHY

COUSSEMENT I., LEMAIRE B., LAURE J., 1980. Evolution des prix de détail des principaux aliments à Rabat-Salé (maroc) entre 1972 et 1976. Paris, Cahiers ORSTOM, série Sciences Humaines, vol. XVII, Nos 1-2 : 67-83.

FOURASTIÉ J., BAZIL B., 1984. Pourquoi les prix baissent. Paris, Hachette, collection Pluriel, 320 p.

Instituto de Nutrición de Centro América y Panamá (INCAP) - Institut français de recherche scientifique pour le développement en coopération (ORSTOM), Ciudad de Guatemala, LAURE J. et col. : 1990. Guatémala : les salaires rattrapperont-ils les prix? Analyse de l'évolution comparative des salaires minimums et des prix des principaux aliments et combustibles domestiques au cours des dernières décennies. 62 p.. Publié également in Collection Travaux et Documents Microédités, TDM 68, ORSTOM, Paris.

---- 1990. Guatemala: ¿Alcanzarán los salarios a los precios? Análisis comparativo sobre la evolución de los salarios mínimos y de los precios de los alimentos y combustibles domésticos (1955-1989). Colección Documentos técnicos, No 18, INCAP, 26 p.

---- 1990. Un demi-siècle de politiques en faveur des bas salaires au Costa Rica : conséquences sur le pouvoir d'achat général et alimentaire. 73 p. Publié également in Collection Travaux et Documents Microédités, TDM 67, ORSTOM, Paris.

---- 1990. Costa Rica: Medio siglo de políticas a favor del incremento de salarios minimos más bajos. Consecuencias sobre

el poder de compra general y el alimentario. Colección Documentos técnicos, No 19, INCAP, 32 p.

---- 1991. Nicaragua : salaires minimums réduits à la portion congrue. Relation de la quasi-disparition des salaires minimums et de la fonte de leur pouvoir d'achat général et alimentaire. 68 p.

---- 1991. Nicaragua: El colapso de los salarios mínimos. Un caso de hundimiento extremo de los salarios mínimos, con desplome de su poder de compra tanto general como alimentario. Colección Documentos técnicos, No 22, INCAP, 28 p.

---- 1991. Bélize : un siècle de lente évolution du pouvoir d'achat des bas salaires (1889-1990). 88 p.

---- 1992. Belize: 1889-1990. A century of slow change in the purchasing power of low wages. Un siglo de lenta evolución del poder adquisitivo de los salarios bajos. Colección Documentos técnicos, No 23, INCAP, 40 p.

---- 1993. Salvador (1954-1991) : pouvoir d'achat des salaires minimums avant et pendant la guerre civile. 68 p.

---- 1993. El Salvador (1954-1991): Poder de compra de los salarios mínimos antes y durante la guerra civil. Colección Documentos técnicos, No 24, INCAP.

LAURE J., 1978. Evolution des prix de détail des principaux aliments à Kigali (Rwanda) entre 1964 et 1978. Paris, Cahiers ORSTOM, série Sciences Humaines, vol. XVII, Nos 1-2 : 85-115.
1985. Evolution de salarios y precios de los alimentos en la Ciudad de La Paz, Bolivia (1975-1984). INAN-ORSTOM/MSA, La Paz, 197 p.

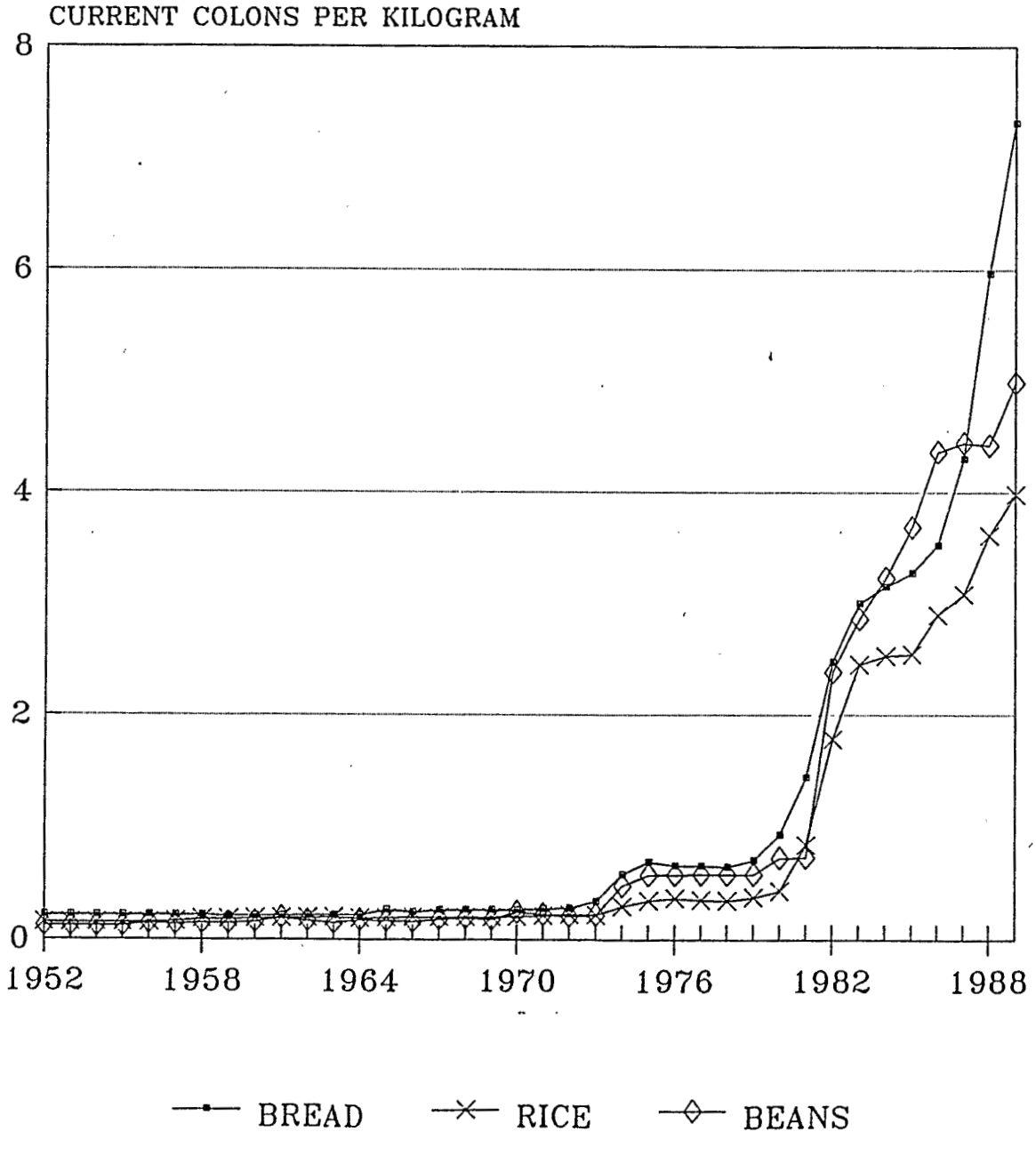
---- 1986. Variation des salaires et des prix des aliments à La Paz, Bolivie (1975-1984). Paris, Editions ORSTOM, collection Etudes et Thèses, 158 p.

LEMAIRE B., 1980. Evolution des prix de détail des principaux aliments à Bujumbura (Burundi) entre 1969 et 1979. Bujumbura, Ministère de la Santé Publique, ronéo., 45 p.

VALVERDE V., DELGADO H., FLORES R., SIBRIáN R., 1985. Minimum wage law and nutritional status in Guatemala. Ciudad de Guatemala, INCAP, 37 p., 58 references, 37 tables.

Figure 1

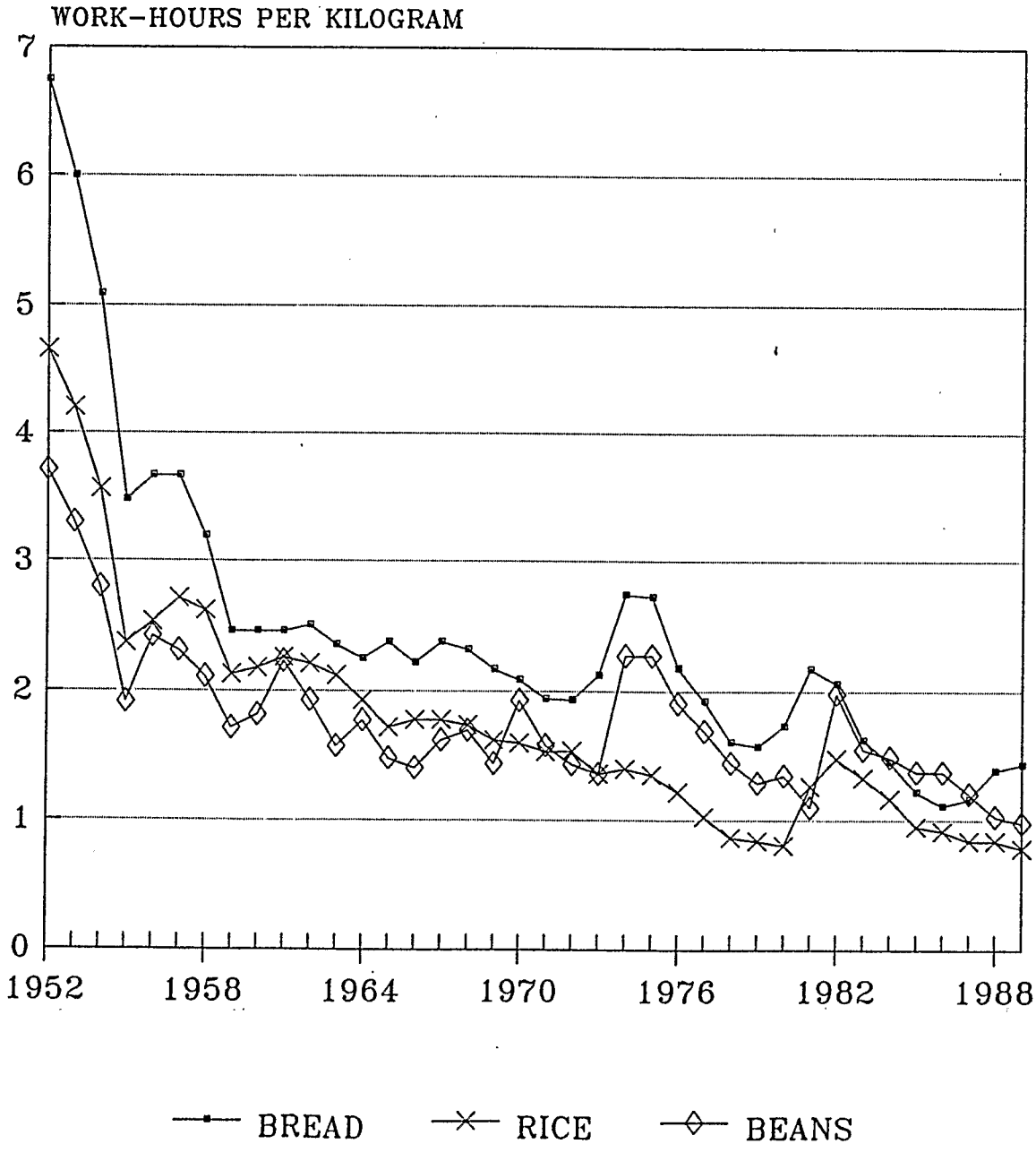
PRICE IN COLONS OF CEREAL PRODUCTS



SAN JOSE, COSTA RICA

Figure 2

PRICES IN WORK-HOURS FOR CEREAL PRODUCTS



SAN JOSE, COSTA RICA

Figure 3

RELATIONSHIP BETWEEN MINIMUM WAGE INDEX AND THE FOOD CONSUMER PRICE INDEX

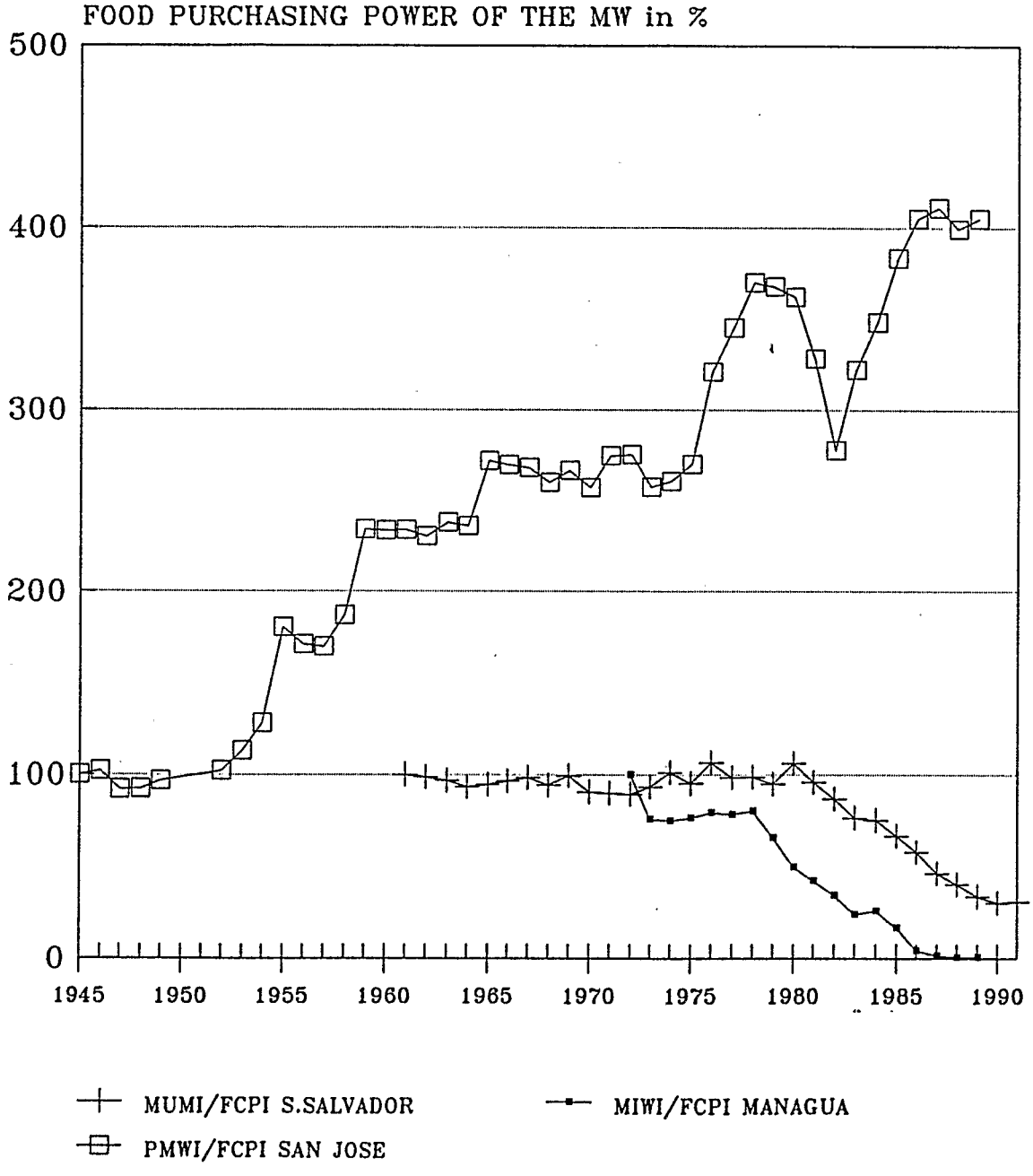
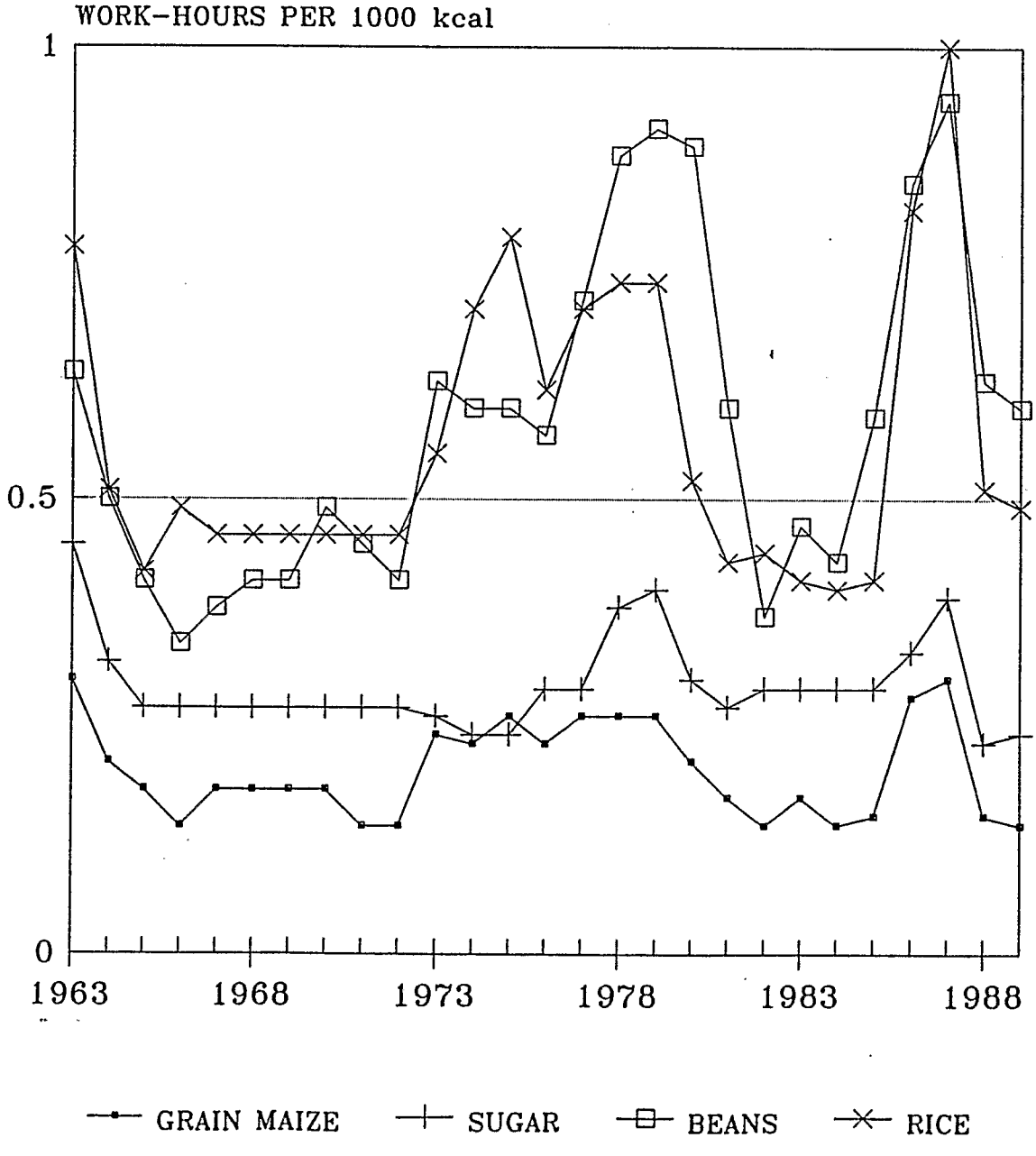


Figure 4

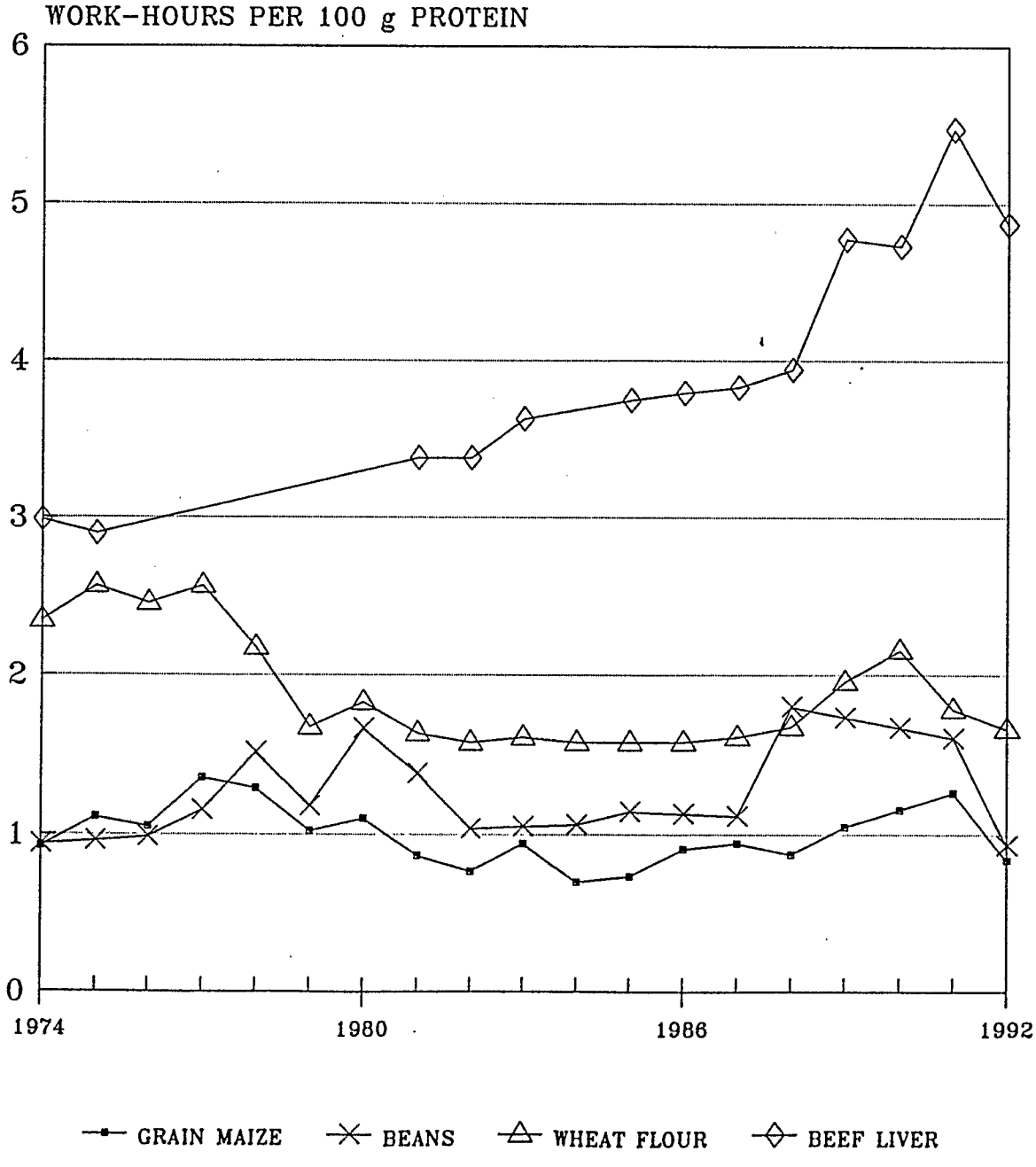
LEAST EXPENSIVE SOURCES OF DIETARY ENERGY



GUATEMALA CITY

Figure 5

LEAST EXPENSIVE PROTEIN SOURCES



TEGUCIGALPA, HONDURAS

Figure 6

PRICES OF SUGAR AS A SOURCE OF DIETARY ENERGY IN CENTRAL AMERICA

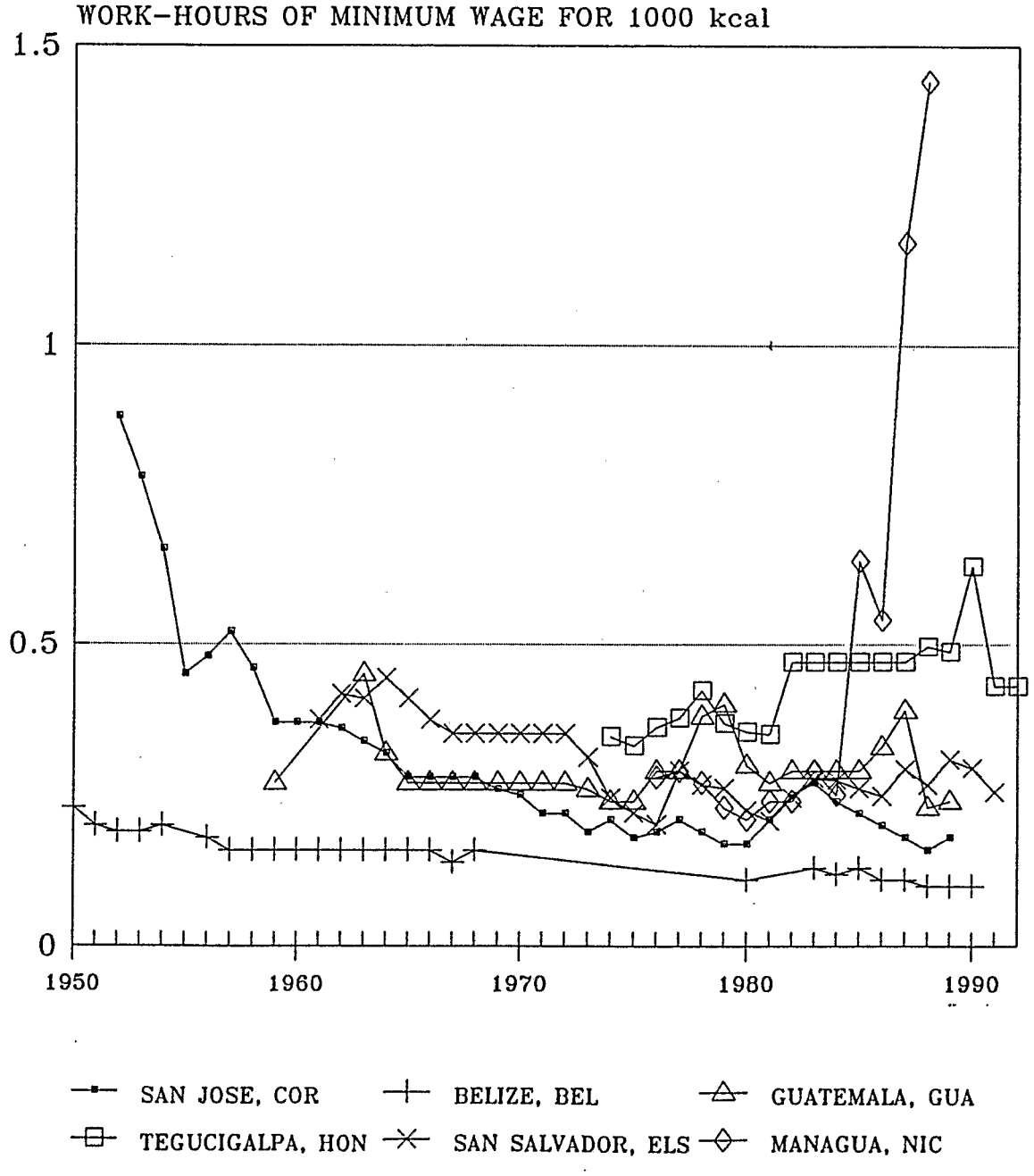
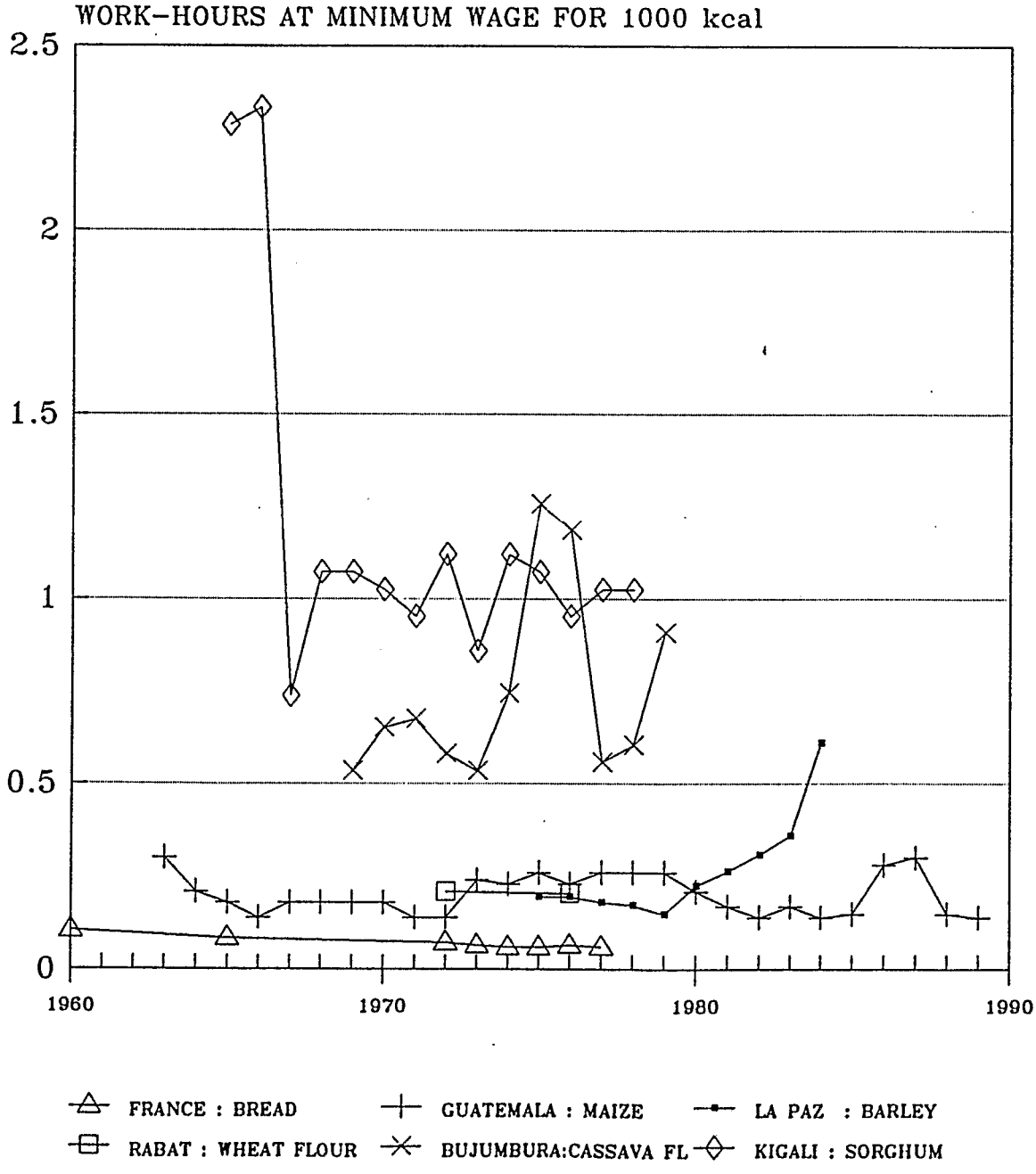


Figure 7

PRICES OF 1000 kcal OF THE LEAST EXPENSIVE SOURCES OF DIETARY ENERGY



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ABSTRACTS

BOOK 1

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THE PURCHASING POWER OF THE MINIMUM WAGE, USED AS INDICATOR OF WELFARE AND OF THE FOOD SITUATION

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In order to avoid the problems of changes in the intrinsic value of money, for instance changes due to inflation, the price of goods and services is calculated in terms of 'work-hours', that is the number of hours at the minimum wage needed to work to earn the equivalent of the price of a particular amount of a given good or service. In the case of food items, prices are calculated per amount of the item: for example it may be presented per kilogram, per 1000 kilocalories and per 100 grams of protein.

This simple yet efficient method can be used to evaluate changes in the purchasing power of the minimum wage for both food and general items; to compare situations in different countries; and to formulate and monitor a wage and salary policy towards improving the welfare and particularly the food situation of those living on a minimum wage.

Examples from Africa, Europe and America will be discussed.