The Maltese food system and the Mediterranean

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Abstract: The paper seeks to understand the Maltese food system in the context of its history and its geographical position within a broad Mediterranean setting of food production, processing, marketing and consumption. Although it has characteristics in common with Spain, Italy and Greece, Malta has some unusual features derived from its colonial heritage and its long-standing dependence upon imported foodstuffs. The future is uncertain because full membership of the European Union might threaten agricultural prosperity and indigenous food manufacturing. A 'systems of provision' approach to the study of the Maltese food system would be an appropriate framework for further research.

Introduction

As in so many matters, Malta's importance in the study of food systems goes far beyond expectations according to its size. It represents the difficulties faced by so many small island states in reaching self sufficiency in basic foods, a circumstance which tends to undermine both economic strategy and independent political viability. Malta's application to join the European Union also raises a number of interesting questions about the readiness of countries in the next wave of EU expansion for the chill wind of competition. On the one hand its history has prepared it for the era of globalization yet, on the other hand, its agriculture and food industries are undoubtedly vulnerable to the pressures that will come from transnational capital and the aggressive food policies of some of its neighbours.

The paper explores the Maltese food system in its historico-geographical setting. Although it shares characteristics with other countries in the Mediterranean, there are some unusual features derived from the colonial connexion and its long dependence upon food imports. These and other aspects of Malta's food geography could be accommodated profitably within the 'systems of provision' approach suggested by Fine, and it is with this last thought in mind that we will start the essay with some brief introductory comments about the theory of food systems.

Food systems

The term 'food system' has been appropriated widely by writers to mean any aspect of the production, marketing, processing, manufacture, transport, wholesale, retail or consumption (Tansey and Worsley, 1995). As the main means of supporting human life, the food system deserves attention, yet the literature has lacked focus until recently when at last a few attempts have been made to suggest structural methodologies and to develop theoretical underpinnings. Davis and Goldberg (1957) were among the first to look at the steadily increasing power of capitalism in the food industry. The importance of their 'agribusiness', *sensu lato*, resides not just in the scale of capital accumulation and employment but also in its capacity to stimulate the economy as a whole due to its backward and forward linkages (Bernini Carri, 1987). While in the Anglo-American realm food received little attention until the 1980s, one theme that did attract widespread research was that of food security, and the concept of food systems has been bent to the purposes both of the efficient provisioning of the undernourished and of understanding the socio-economic context of hunger (Garcia, 1984). French and other Continental social scientists have always had food closer to the top of their agenda and have achieved some impressive insights. Louis Malassis (1973, 1986) in particular has systematised the analysis of food systems, and spatial analyses have been contributed from a number of perspectives (Thouvenot, 1978).

Most of the literature until the 1980s was cast in the mould of one academic discipline or another, especially *qua* history (Teuteberg, 1992), economics (Malassis, 1992a), sociology (Murcott, 1983; Mennell et al., 1992), geography (Diry, 1987; Atkins, 1988) or anthropology (Murcott, 1989), but some recent publications have sought to cross these intellectual boundaries and are propounding interdisciplinary interpretations (Harriss-White and Hoffenberg, 1994), especially those in the structuralist and post structuralist traditions. Fine, Heasman and Wright (1996) have provided a critique of such trends and argue that a body of food system theory is emerging out of the political economy debate on global food capitalism and its consequences (Goodman and Redclift, 1991; Goodman and Redclift, 1994; Goodman and Watts, 1994). The identification of system elements and the inter-relationships between them, whether farmers and food processors, manufacturers and grocery chains, or retailers and consumers, is one important analytic cut. Others include attention to historical trends

such as the rise of biotechnology, and the study of the timespace contingencies which produce specific empirical outcomes according to a unique combination of circumstances at a particular time/place conjunction. Fine differs from other political economists in his unease with the use of an industrial template in the analysis of agriculture and its products and his consequent underplaying of the Fordist/post-Fordist periodization of McMichael's food régimes (McMichael, 1994). Instead he insists on a 'systems of provision' approach. This he takes to be different from standard political economies because of the recognition that food systems are so heavily influenced by the organic conditions of production in agriculture and by the organic, and therefore perishable, nature of food as a consumer product. He also distances himself from recent post-modernist interpretations of food as being merely a small stage in the new and ever growing theatre of consumption, a 'horizontal' approach which sees food merely as the carrier of wider meanings and which therefore does not privilege individual commodities. Systems of provision by contrast are precipitations of meanings, structures, activities and interrelationships around particular historically and spatially contingent, and *vertically* orientated, features of the food system (Fine and Leopold, 1993).

We have much sympathy with Fine's appraisal of food systems, but consider his apparent differences from Friedmann's (1994) food complexes and Malassis' (1986) filières to be somewhat artificial and unhelpful. We would also wish to extend his systems of provision in three directions. Firstly, we feel that he appears to go too far in ruling out the work on food that has come from the recent cultural turn in social science. For us this is a source of inspiration that potentially could greatly enrich the study of individual systems of provision. Secondly, the social consequences of food consumption, especially for health, are of crucial importance and will become a driving force in the food chain of the next century. Fine is well aware of health and food quality issues but seems to stress economistic perspectives. Finally, we wish to argue that the analysis of location-specific provisioning systems can illuminate some features of structure and process. This is not a call for descriptive empiricism but a recognition that the study of local outcomes of broad trends is essential for any general theory.

On this third point, small island food systems are convenient for exploratory research because data on production, imports, exports, manufacturing and consumption are easily gathered and cross-boundary and inter-regional leakages are naturally constrained. We have chosen Malta for this paper because it is indicative of the problems faced in the post-colonial era by any economy that was formerly dependent for its direction upon a metropolitan power. These historical roots have conditioned the Maltese food system to a fundamental degree, yet the outwardlooking nature of the economy will not necessarily protect it from the forces of globalization in the shape of international capital and the supra-national state policies of the EU.

The paper begins with a brief account of agri-food issues in the Mediterranean. The food system of Malta is then introduced as an outcome of its historical background, geographical position and resource endowment. No individual commodity is scrutinized because our intention here is to look at how the system has evolved overall. It is argued that the islands retain some Mediterranean features of economy and culture, yet they also display a number of the dietary and health characteristics of northern Europe. In terms of outlook and inclination the Maltese feel that their future belongs with Europe, yet membership of the European Union would undoubtedly further exaggerate the fragility and vulnerability of their nation's agri-food sector.

Mediterranean food systems

The food-chain (farmer-processor-retailer-consumer) employs twenty per cent of the European Union work force and generates ten per cent of EU gross domestic product (Trail, 1989). In the northern arc of the EU Mediterranean, in Spain, Italy, and Greece (S.I.G.), and to a certain extent France, the combined labour force in agriculture and food manufacturing is double that of northern Europe (Table 1), but with lower labour productivity and less capital investment. In terms of these and other economic structural characteristics, the agri-food sector in Malta has much in common with that of its neighbour to the north, Italy.

Table 1. Percentage of total employment in agriculture and food manufacturing, 1993

	Agriculture, fishing, forestry	Manufacture of food products and beverages
Belgium	0.4	2.7
Denmark	2.3	4.2
France	1.5	2.8
Germany	1.9	2.1
Greece	1.8	3.2
Ireland	2.6	5.0
Italy	4.1	1.9
Luxembourg	0.7	1.4
Malta	2.4	3.2
The Netherlands	1.6	2.6
Portugal	2.8	2.9
Spain	4.3	3.6
United Kingdom	1.0	2.3

Sources: Eurostat; Central Office of Statistics (1995) *Abstract: an annual review of statistical data* no. 47 Valletta: C.S.O.

The Mediterranean food system is sometimes characterised as traditional and quite distinct from the highly organized and complex filières of northern Europe. Agriculture remains centred on a nexus of crops such as olives, grapes, citrus and durum wheat, and the livestock products of sheep and goats. These are well adapted to a climate of summer droughts but the seasonality of production, the presence in the region of much difficult hilly terrain remain, and the predominance of small family farms are severe constraints (Feio, 1989). Some farmers have found specialization to be profitable, such as rice cultivators in the well watered Po Valley or growers of early horticultural crops under plastic cloches, but the exploitation of such physical comparative advantage remains limited.

Beyond the farm gate, marketing and distribution are organized locally and small enterprises dominate processing, manufacturing and retailing (De Castro and Furesi, 1990). Integration with the primary sector is poor. The availability of services and credit is normally scarce and expensive, technological and organizational innovation sporadic and quality control erratic. The ability of the Mediterranean agro-industrial complex to compete beyond its own hinterland has been weak hitherto and even in their own market traditional Mediterranean food processors are coming under increasing pressure (Commission of the EC, 1985). In Italy, food processing and manufacturing underwent intense restructuring in the 1980s, with greater geographical and corporate concentration emerging, and this has meant an even greater disadvantaging of the Mezzogiorno (Terrasi, 1985; Ievoli, 1986, 1988; Balestrieri, 1988; AlB and Bedetti, 1988; Loseby and Matteucci, 1992). There has also been some restructuring of the Mediterranean food distribution sector but there is a long way to go

before northern European levels of capital concentration are reached in grocery retailing (Eurofood, 1991).

The consequences of rural stagnation in the region have been depopulation and the abandonment of land in marginal areas, often in the very areas which have the most fragile social and physical environments. Where only two to four per cent of land was uncultivated in 1950, now the proportions are ten to twenty per cent (Clout, 1991). Outmigration to urban and industrial jobs, often outside the Mediterranean, does have its counter streams of *retornados* but they have tended to invest their accumulated savings in the service economy and in conspicuous consumption, such as high status housing, rather than in stimulating agriculture.

Several interconnected forces are now shaping the food system in the region. The expansion of total demand is limited by the deceleration of population growth, but there is plenty of scope for secular shifts in taste and cross-substitution of products as consumers with an increased disposable income become more flexible in their response to price fluctuations and advertising (Gastoni and Atkins, 1996). The steady process of urbanization has lengthened the food chain and cut the opportunities for self-sufficient provisioning available to rural dwellers. It has also created lifestyles where convenience food is at a premium and traditional ways of eating are disintegrating. Technological change and globalization are other powerful forces but here the agri-food sector of S.I.G. is at a disadvantage because of its modest competitiveness in international terms. Even though some filières have developed efficiently, for example citrus production in Spain, they are only islands of competitiveness within the Mediterranean space (Perez, 1990). The territorial equilibrium of the old international agri-food division of labour has begun to crumble and this is likely to lead to instability as transnational capital insinuates its influence into a potentially valuable market (Cannata, 1982; Perelli et al., 1984; Florio, 1987; Brito Soares, 1990). Nation state and European Union policies have also influenced the agri-food sector since the Second World War. The Common Agricultural Policy was never geared for Mediterranean products, concentrating on northern European commodities such as milk, meat and grains rather than fruits and vegetables, and the weak price support for the region's producers has been compounded in recent years by the opening of Mediterranean markets to the European Single Market and the conclusion of the General Agreement on Tariffs and Trade. It is hardly surprising then, but perhaps a little ironic for economies so dependent upon agriculture, that several Mediterranean countries have food trade deficits (Table 2). Italy is an extreme example, with an import/export imbalance that grew eleven fold (50 per cent in real terms) 1970–90 (Casati, 1990; Frappetta, 1991; Bertelè and Casati, 1992; Gastoni, 1993a). Yet health-conscious European demand for Mediterranean foods such as pasta, olive oil, fruits and vegetables is buoyant and S.I.G. producers should be in a position to benefit in the near future if they can develop suitable marketing channels (Cantarelli, 1986; Bartola and Sotte, 1992).

Table 2. The balance of trade in agricultural products, 1992

	Imports ($000)	Exports ($000)
Greece	3,366,220	3,219,620
Italy	24,523,400	13,045,800
Malta	18,537	2,353
Spain	10,088,420	9,470,600

Source: FAO, *Agrostat* 1994.

Changing tastes and structural shifts in demand are challenging the concept of a 'Mediterranean diet'. In recent decades food consumption in the region has lost some of its concentration on local specialities, the so-called 'typical' foods, partly due to lifestyle trends and also as a result of an increased awareness of dietary habits in northern Europe and America, the so-called demonstration effect. Titos Moreno (1990) applied a cluster analysis to the consumption figures of the countries in the Mediterranean Basin and found that there was some convergence from 1971 to 1987 between S.I.G. and the rest of the EU, particularly in the demand for cereals, vegetables, wine and meat. But clear differences remain with the southern and eastern flank of African and Asian countries, and S.I.G. consumers maintain their aversion to processed food and animal fats. Malassis (1992b) shows that the differences between the agri-food sectors of north and south Europe are still more important than their similarities, and allegiance to local gastronomic cultures persists (Gastoni, 1993b).

In sum, global forces are drawing the Mediterranean agri-food system slowly but surely into the international realm. There is some resistance from consumers, politicians and local capitalists but they are starting from an initial position of weakness and it is hard to see how S.I.G. can avoid the path to mass consumption, standardization and cultural dependence. Interestingly, Malta was a pioneer along this road from an early date.

The Maltese food system

As a small group of islands with a unique history, it is not unexpected that Malta should have an unusual food system. The long periods of control by the Knights of St. John (1530–1798) and the British (1800–1964) brought greater peace and prosperity than might otherwise have been the case. As a result the population grew and urbanization proceeded unchecked. In fact Malta has one of the highest densities of population and one of the highest proportions of urban dwellers anywhere in the world (Cilia, 1993). Much of the national territory is rocky or has thin, dry soils, and it was logical to look outside for sustenance. Under the Knights this was seen as a potential weakness for an island fortress but the British had a different attitude. From the mid nineteenth century Britain's own level of self-sufficiency in temperate agricultural products was sacrificed in a drive for cheap food to support its comparative advantage in manufacturing, and the free-trade philosophy was applied equally in Malta. The islands were in a strategic position for bunkering steam ships, servicing naval vessels, and acting as an entrepôt, and the efforts of successive administrations were devoted to exploiting this rather than to encouraging agriculture (Charlton, 1960; Bowen Jones et al., 1961).

Throughout the twentieth century Malta has therefore imported most of her food and her dependence remains strong today (Table 3). There is adequate self-sufficiency only in starchy roots (potatoes), most vegetables, eggs and alcoholic drinks. Basic commodities such as cereals, vegetable oils and sugar are sourced overseas, and even products which in theory can be intensively produced in off-land feeding lots, such as meat and milk, are well below par. The shortfall in fish is disappointing given the superior catches in S.I.G., but understandable considering the migrational vagaries of the lampuka and other local species (Busuttil, C., 1993).

Table 3. Malta's self-sufficiency in agricultural products (percent)

	1961	1965	1970	1975	1980	1985	1990	1992
Cereals	6	6	4	3	7	6	5	5
Starchy roots	104	142	155	120	169	81	100	109
Sweeteners	0	0	0	0	5	5	4	15
Treenuts	0	0	0	0	0	0	0	0
Oilcrops	0	0	0	0	0	0	0	0
Vegetable oils	0	0	0	0	0	0	0	0
Stimulants	0	0	0	0	0	0	0	0
Pulses	17	19	8	33	67	67	33	33
Vegetables	100	104	100	100	92	96	93	93
Fruit	48	55	46	43	40	49	40	36
Alcohol	200	133	113	117	114	87	87	96
Meat	36	36	47	53	26	48	56	47
Animal fats	25	33	33	25	25	60	67	67
Milk	49	48	47	45	40	38	35	33
Eggs	67	100	100	100	100	100	100	100
Fish	33	33	33	50	11	50	20	20

Source: FAO (1994) *Agrostat*.

Since independence from Britain in 1964, successive governments have attempted to reduce the impact of this inflow of food in a number of ways. First, there has been a targeting of those sectors which were thought to have scope for increased production, particularly during the Fourth and Fifth Development Plan periods (1973–80, 1981–85). In Tables 4 and 5 it is clear that both milk and meat came under this heading, both significantly reducing their imports by volume and/or value in the last twenty years. Second, the state has acted as a monopoly bulk purchaser of grain (through Medigrain), the principal commodity in deficit, in order to get the best possible price for the nation (Mizzi, 1993a). The thinking here, along lines not uncommon in poorer developing countries, is that Malta is so small that economies of scale are rarely available and it therefore takes the muscle of government to close favourable deals. Third, an aggressive policy of export- and service-led growth in recent years has taken the country even further from its agrarian roots and agri-food issues have faded somewhat in strategic importance. It is worth noting that the proportion of foodstuffs in the overall import bill, which had stood at 32.8 percent in 1961, by 1992 had declined to only 6.6 per cent. The equivalent figure for Spain was 10.1 percent, Italy 13.0 per cent and Greece 14.4 per cent.

Table 4. Volume of food imports 1961–92 (1979–81 =100)

	Cereals	Meat	Dairy products
1961	66.5	29.8	66.4
1965	68.9	33.0	55.5
1970	91.7	45.2	65.4
1975	125.8	51.9	63.3
1980	88.3	114.0	109.0
1985	111.0	89.7	97.1
1990	123.5	71.9	82.8
1992	131.1	51.0	73.7

Source: FAO (1994) *Agrostat*.

Table 5. Breakdown of food imports by value (percent)

	1961	1965	1970	1975	1980	1985	1990	1992
Live animals	5.3	4.4	3.7	1.7	2.7	1.1	0.8	0.7
Meat	12.8	13.0	16.8	13.2	27.2	21.9	16.3	11.0
Dairy products	14.8	13.7	12.4	10.7	11.5	14.2	15.8	17.3
Cereals	24.4	26.0	26.3	36.3	19.0	23.8	21.6	22.3
Fruit and vegetables	19.9	15.4	15.9	11.5	11.5	13.6	18.2	17.9
Sugar and honey	4.6	6.8	5.0	10.2	13.8	5.5	8.1	5.7
Coffee, tea, cocoa	6.8	6.1	7.2	5.2	5.0	6.0	7.7	11.6
Fats and oils	3.5	4.8	4.7	3.2	3.6	5.8	3.5	3.9
Other	7.9	9.8	8.0	8.0	5.7	8.1	8.0	9.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: FAO (1994) *Agrostat*.

Trends in Maltese agriculture have mirrored wider Mediterranean trends but, in the absence of a strong government agri-food policy or the safety net of the EU's Common Agricultural Policy, have accelerated to a level beyond almost any region in S.I.G. An example is the overall agricultural area, which has declined remarkably, by over one third, since 1961 (Table 6). Much of this has been dryland abandoned by farmers who have decided to concentrate on fields that can be irrigated, although labour has been a factor. As agricultural incomes have faltered, many farmers have taken jobs in industry, tourism or the urban-based service sector, and others have emigrated. Except for a few intensive enterprises, farming is now mainly a part-time and in many cases a hobby activity (Table 7).

Table 6. Agricultural land, 1961–91 (ha)

	Dryland	Irrigated	Wasteland	Total
1961	14,996	693	2,318	18,007
1971	12,625	627	1,938	15,190
1981	11,031	586	1,615	13,232
1991	9,998	723	1,181	11,902

Source: Meli (1993, p. 75).

Table 7. Numbers of Maltese farmers, 1961–91

	Full-time	Part-time	All farmers
1961	7,330	8,815	16,145
1971	5,636	8,324	13,960
1981	4,352	10,923	15,275
1991	1,473	12,807	15,280

Source: Meli (1993, p. 74).

It is very noticeable that significant portions of land that were recorded as cropped or grazed in the University of Durham land-use survey of the 1950s are now little more than scrub, with crumbling drystone walls (Charlton and Beeley, 1987). Other portions have been encroached upon by buildings because the planning controls have been lax.

The state has sought to encourage farming only indirectly. There are no market price support mechanisms or area payments, as in many advanced countries, but help has been provided through the provision of relatively inexpensive water. This seems a curiously inefficient use of resources in a country which is so short of water that it has to desalinate over half of its supplies, mainly for domestic use, at considerable cost. Some of this irrigation water comes from the Sant' Antin Sewage Treatment Plant, a government scheme initiated in 1983 (Gauci, 1993). A composting unit is also now recycling waste in a form that will add much needed organic matter to the generally immature Maltese soils and therefore improve their structure and fertility. Assistance has also been available for producer cooperatives and in 1988 the Ministry of Agriculture and Fisheries sponsored an experiment in fish farming (Agius, 1993).

The modernization of Maltese farming has been constrained by a land tenure system dominated at first by the church and later by the state. Low rents and an antiquated leasehold system have encouraged occupiers to stay, even if they are not using the land. In addition, most farms are little more than smallholdings comprised of fragmented plots, looked after by an ageing population of farmers who, because of their small scale of surplus production, are dependent for their marketing opportunities upon the pitkali, or wholesale traders (Busuttil, S., 1993).

Consolidation, training, extension, and credit for investment are all needed in significant measure (Bonanno, 1993) if the islands' agriculture is ever to sit easily in the broader framework of the EU, but there is an argument that such changes are neither necessary nor desirable. It might be better to recognise farmers as custodians of the fragile Maltese environment rather than encouraging them to degrade it through intensive farming practices that would inevitably lead to pollution, soil erosion and the excess use of scarce resources such as water. It may be that the authors of the Third Development Plan (1969–74) had it right when they asserted that 'it would be physically impossible as well as economically unsound to attempt to produce locally all Malta's food requirements' (quoted in Mizzi, 1993a).

A duality is beginning to crystallise in the Maltese agri-food sector. On the one hand traditional farming is resistant to change and seems likely to become a kind of leisure activity that does not stress purely economic values and is therefore not susceptible either to state policies or to the full rigour of market forces. A qualitative, ethnographic study of values and behaviour in this sub-sector would be extremely interesting and might reveal some insights of broader significance for the future of farming in some other Mediterranean regions.

On the other hand there is some intensive, capitalised production of milk, pigs, poultry and eggs and a small number of enterprises in time could dominate the local market and perhaps move into high value exports. Subsumption by industrial capital has not yet developed, however, partly because most units are small (Table 8) and their value added is modest by comparison with other industrial sectors. They are mostly processing local or imported raw materials or manufacturing at a relatively unsophisticated level. Overseas investment in the Maltese food sector has been minimal and most branded goods are imported, from all over Europe and beyond. Traditional links remain important here, with the United Kingdom still the leading source of sugar confectionery (45 per cent in 1993), chocolate (57 per cent), biscuits (38 per cent), and soups and broths (52 per cent).

Table 8. Food industries in Malta

	Number of establishments	Employees	Gross output (Lm 000)
Slaughtering, preparing and preserving meats	10	233	7,736
Manufacture of butter, ice cream and other dairy produce	7	296	10,848
Canning and preserving fruit and vegetables	8	382	12,531
Manufacture of vegetable and animal oils and fats, and grain milling	9	134	5,407
Manufacture of bakery products	324	1,216	15,294
Manufacture of cocoa, chocolate and sugar confectionery	6	75	736
Manufacture of other food products	13	123	1,551
Manufacture of soft drinks and carbonated water	12	365	10,648
Wine, malt liquor and malt	15	907	19,985

Source: Central Office of Statistics (1993) *Industry statistics 1993, volume II*, Valletta: C.O.S.

Mizzi (1993b, 1993c, 1995) is concerned that full EU membership would eventually, after the usual transition period, have a deleterious impact upon the food and drinks sector. The most vulnerable industries are meat processing, grain milling, bakery and confectionery, and oils and fats. This would not be the result of takeovers of indigenous factories but rather the pressure of competition from further imports which hitherto have to some extent been kept at bay by protectionist policies. Manufacturing jobs would be lost unless a progressive industrial strategy can be formulated to improve capital investment, research and development, labour skills, and quality assurance well in advance of EU entry. The other Mediterranean island courting the EU, Cyprus, seems to be ahead of Malta in most of these areas (Mizzi, 1995).

The weakly developed food industry and lack of concentration in Maltese food retailing are typical of the Mediterranean but one should not assume that consumption practices are also in line. Table 9 hints that, although Malta has a diet with elements similar to those of S.I.G., it is not easy to categorise. The pull is strongest from the cultural magnet of Italy (Dougall, 1987), with much bread, pasta, vegetables, fruit and wine, but the lack of indigenous resources restricts the intake of olive oil and certain cosmopolitan preferences have emerged during the long years of colonial dominance and the tradition of Maltese migration abroad for at least part of the working career. The growth of the tourist industry in recent decades has also had an impact, through the highly visible consumption of convenience and luxury foods. Thus the average Maltese has developed a sweet tooth and drinks beer, but consumption of fish is surprisingly low. One distinctive national delicacy that sets Maltese cuisine apart is the taste for rabbit and many families, even in the urban areas, fatten their own rabbits for special occasions.

Table 9. The Maltese diet in its Mediterranean context

Food	Malta		Spain		Italy		Greece		Europe	
group	kCals	fat (gm)	kCals	fat (gm)	kCals	fat (gm)	kCals	fat (gm)	kCals	fat (gm)
Cereals	1175	5.1	736	2.8	1123	3.7	1.57	4.1	878	3.5
Starchy roots	55	0.1	201	0.3	77	0.1	139	0.2	148	0.2
Sweeteners	502	-	308	-	290	-	327	-	374	-
Pulses	55	0.3	55	0.3	50	0.3	56	0.3	28	0.1
Treenuts	20	1.8	44	3.9	32	2.7	54	4.6	25	2.2
Oilcrops	80	4.9	25	2.3	14	1.3	36	3.4	18	1.6
Vegetable oil	370	41.8	677	76.6	626	70.8	664	75.1	413	46.7
Vegetables	97	0.7	107	0.8	105	0.9	134	1.2	75	0.6
Fruit	122	0.6	160	1.0	171	0.9	253	1.3	124	0.7
Stimulants	55	4.5	14	0.8	11	0.5	11	0.7	18	0.9
Spices	2	0.0	6	0.3	1	0.0	4	0.1	4	0.2
Alcohol	85	-	195	-	147	-	123	-	200	-
Meat	451	37.5	756	68.6	396	29.4	453	37.9	478	39.8
Offals	10	0.3	12	0.4	11	0.3	12	0.4	14	0.4
Animal fats	125	13.9	61	6.8	162	17.9	68	7.5	224	24.9
Milk	174	8.5	231	13.7	244	15.8	340	23.0	303	18.1
Eggs	65	4.5	58	4.1	48	3.3	39	2.7	48	3.4
Fish	32	1.3	59	1.5	39	1.4	37	1.1	37	1.4
Total	3480	125.9	3705	184.2	3549	149.4	3814	163.9	3412	144.8

Source: Food and Agriculture Organization (1994) *Agrostat* FAO: Rome.

Over the period 1961–92 energy (kCals) intake increased by 18 per cent and fats by 52 per cent (Tables 10 and 11). There was a significant acceleration in the consumption of sugar, meat, vegetable oils, eggs, alcohol, fruit and vegetables, and a decline in milk, animal fats, potatoes and pulses. The health implications are important. Malta has a much higher rate of cardiovascular disease and diabetes than neighbouring countries and a problem of obesity (Belizzi, 1993). These are north European characteristics atypical of the Mediterranean and there have been calls from the World Health Organization (WHO, 1986) for a reduction of fat, sugar and salt in the Maltese diet.

Table 10. Major sources of dietary energy (kCals), 1961–92

	1961	1965	1970	1975	1980	1985	1990	1992
Cereals	1252	1267	1224	1314	1134	976	1149	1175
Sweeteners	400	498	501	491	523	493	519	502
Meat	194	190	277	263	381	365	342	451
Vegetable oils	142	264	229	224	278	333	333	370
Milk	212	198	220	223	232	209	169	174
Animal fats	203	141	165	173	167	161	106	125
Fruit	78	69	87	93	95	108	116	122
Vegetables	53	59	64	91	99	85	98	97
Alcohol	20	29	44	67	83	67	86	85
Eggs	35	37	48	61	60	62	64	65
Pulses	196	226	205	33	40	45	48	55
Potatoes	77	39	34	53	53	48	32	55
Fish	23	18	25	23	55	39	33	32
Total	2946	3118	3213	3196	3292	3088	3215	3480

Source: FAO, Agrostat, 1994.

Table 11. Major sources of dietary fat (gm), 1961–92

	1961	1965	1970	1975	1980	1985	1990	1992
Vegetable oils	16.1	29.8	25.9	25.3	31.4	37.6	37.6	41.8
Meat	16.2	15.4	23.0	21.4	31.6	29.9	28.3	37.5
Animal fats	22.7	15.7	18.5	19.4	18.8	18.0	11.8	13.9
Milk	12.0	11.2	12.0	11.8	11.5	10.8	8.1	8.5
Cereals	6.3	6.4	6.9	7.6	7.3	4.2	5.1	5.1
Eggs	2.4	2.6	3.4	4.3	4.2	4.3	4.5	4.5
Total	83.1	89.4	99.1	97.6	113.4	113.1	106.1	125.9

Source: FAO (1994) Agrostat.

Mizzi (1993d) has noted a shift away from beef towards chicken and frozen fish but as yet health conscious eating is at an early stage of development. Some moves in the right direction have been made by the government, which adopted a food and nutrition policy in 1988 and introduced food labelling regulations in 1992 (Belizzi, 1993).

The short links of the domestic food chain and the drawn-out connexions of Malta's international trade have etched a curious set of dualisms in her spheres of production and consumption. The lack of fully developed manufacturing and retailing sectors implies that modernization of the food system has some way to go. Whether this will happen to the benefit of the Maltese, through the trading opportunities that would come with EU membership, seems to us to be very much open to question. Existing structures are unlikely to be sufficiently strong to withstand overseas pressures unless careful planning is instituted now, well in advance of EU enlargement. Otherwise all participants in the system will have regrets, with the possible exception of consumers who may notice little change.

Conclusion

We have had space here only to sketch the barest outline of the Maltese food system. The islands do not seem to have been isolated at any stage during the last four hundred years and under the British an economy emerged that stressed sectors other than agriculture, to an extent that dependence upon imported raw materials and manufactured foods became accepted as the norm. Other than during the Second World War, this has never been a major strategic or domestic political problem and the policy looks set to continue in future, even if Malta joins the EU. The economy was built on a foundation of globalism in the nineteenth century and the restructuring processes of the international system in the 1990s are just a further, intrusive stage in a process already well advanced. The scale of the food system is so small, however, that government will have to find means of self-protection if it is to avoid the melt-down of its farming and food manufacturing industries.

Malta shares some characteristics in common with her neighbours but the stagnation of her agriculture and its duality are even more pronounced than in S.I.G. Maltese social and economic trends may provide some pointers to Mediterranean futures, but we must remember that the historical trajectory has been very different. Malta not only shares its past with Britain; it also shares many dietary customs and diet-related health problems.

In one sense this paper is a call for more research. We would like to see work on systems of provision and in their regional peculiarities, whether in the Mediterranean or elsewhere. Islands or small nations are convenient in scale but the complexities and interconnexions of food systems are nowadays such that they cannot be studied in isolation any more than von Thünen's artificially controlled laboratory of land-use seems to have a

contemporary relevance. Geographers are well placed to undertake this research but they must be aware of the rapidly evolving inter-disciplinary literature. Above all, the links which food has to many aspects of our welfare, livelihoods and lifestyles mean that it is in a pivotal position to influence the direction of social, economic and cultural theory. In short, the rich and varied theme of 'food studies' is the ideal meeting ground for those interested in the intellectual integration and coherence of social science.

Note

In October 1996 a new labour government decided not to join the EU.

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