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International contracting: A Turkish perspective

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The rapid development of the Turkish construction industry in overseas markets provides a contrast to the internationalization of other countries' construction industries. By focusing initially on low-technology projects in difficult locations and exploiting its mobile low-cost labour force, the Turkish industry has rapidly gained in experience and sophistication, thereby enriching its domestic construction industry.

The internationalization of the Turkish industry has required the development of new institutions and attitudes within Turkey and the rapid development of financial systems.

Keywords: Internationalization, exports, labour costs, subcontracting, Turkey

Introduction

Few construction companies which have worked overseas would deny that international contracting is highly competitive, very risky and beset with a multitude of problems. Not the least of these is understanding the strengths and aspirations of the competition. Countries with developed economies such as the USA, Japan, the UK, France, Italy and Germany, have tended to dominate overseas contracting and the characteristics of their contractors are well understood. However, countries with developing economies, such as Turkey and Korea, have recently emerged as major contenders for international projects and for many people the competitive strengths of these countries are a mystery. One particular country, Turkey, is the focus of this paper. Background information for Turkey is shown in Table 1.

Turkish contractors have developed rapidly overseas and have earned a reputation for being able to tackle low-technology projects, however difficult, and to build at a low cost. Parallel with their growth overseas has been their greater ability to tackle more complex projects in their domestic market. Fifteen years ago, the construction of such facilities as

Table 1. Background information

Population:	54.2 million (1988) Urban, 53%; rural, 47%
Land area:	780 580 km ²
Currency:	Turkish lira (TL)
Time difference:	+ 2 hours GMT

dams, bridges and airports in Turkey mostly required the expertise of foreign contractors. In recent years, not only have Turkish contractors undertaken such projects, but they are now also exporting their newly acquired expertise.

It is tempting to dismiss Turkish contractors as a relatively small and short-term threat in international markets by attributing their success largely to a highly mobile, low-wage labour force, mainly employed in the Middle East and North Africa for religious and cultural advantages. But if these are the sole reasons for success, it is surprising that Pakistan and India have not emerged as major international contracting nations. Turkish contractors have achieved their success despite rampant Turkish annual inflation rates, economic instability in the domestic market, and government policies that do not offer support or subsidize financial guarantees to contractors on overseas projects. Given these constraints, the skills of the Turkish construction industry must be considerable to have achieved the recent level of overseas penetration and success.

So what are the key factors that have contributed to the level of penetration of Turkish contractors in the international marketplace?

Turkish contractors and the overseas market

Contractors enter overseas markets for many reasons, ranging from outright opportunism to stark necessity. Some of these reasons relate to the individual company, while others stem from a national need (Table 2).

Table 2. The opportunities and needs for exporting construction: The Turkish experience

<i>Influences largely at national level</i>
<ul style="list-style-type: none"> • Foreign exchange to be gained from profits and workers' wages • Banker deals and soft loans • Gains of expertise in new technologies (as used by Western consultants) and improved quality • Creation of employment for unemployed labour directly in construction and indirectly in the materials sector • Cultural and religious links
<i>Influences largely at company level</i>
<ul style="list-style-type: none"> • Overseas markets offer better growth/profit • Spare production capacity and domestic operations

Contractors in Turkey, as in most other countries, suffered from the 1970s recession, with a depressed home market following a period of prosperity. Through necessity, they turned their attention to foreign markets. The enormous Middle East and North African markets were the closest and easiest to enter and, in 1975, the Turkish–Libyan Joint Economic Cooperation Protocol paved the way for Turkish contractors in Libya and for the gaining of valuable experience of working overseas.

Although most Turkish contractors moved into the market, initially as subcontractors, rapid assimilation of experience and increased sophistication meant that in the early 1980s

they began to act as prime contractors. In 1978, only 22 Turkish contractors were operating abroad and the total value of contracts was US\$1629 million; by the end of June 1987, 311 firms were working abroad with a total value of contracts of nearly US\$17 billion. Between these dates, nearly 60% of the value of work undertaken came from Libya and 31% from Saudi Arabia. These two countries have remained the most important sources of overseas work, although recently the balance has shifted and work has been secured in other Middle Eastern and North African countries.

Even without employing substantially advanced technology, the work has included a wide range of infrastructure projects, such as harbours, dams, irrigation, drainage, sewerage, roads, tunnels and building work, especially housing and new town development. Heavy industrial work, vehicle-plants, agro-chemical refineries and power plants are also included. Given that the Turkish companies operating overseas are relatively small by European and North American standards, the largest having an average turnover of US\$100 million, their export achievement is clearly significant.

As with many rapidly industrializing countries, difficulties in the balance of payments have been – and continue to be – one of the biggest problems for the Turkish economy. A significant role has been played by overseas contractors in creating employment and contributing to economic growth and to the balance of payments. Foreign exchange has been injected into the Turkish economy through workers' remittances, by the transfer of profits and depreciation funds back to Turkey, and by stimulating the export of construction materials from Turkey. Turkish workers in Turkish construction companies have 30% of their wages retained by their employer and paid directly to their accounts in Turkey as foreign currency. Much of the remaining 70% is believed to be repatriated by the workers themselves in various ways. Workers' remittances are estimated to have been in the region of US\$700 million in 1981, US\$1.6 billion in 1982 and US\$1.2 billion in 1983. Transfers of profits are estimated to have been between US\$210 million and US\$250 million for each year in the period 1982–5.

The significance of construction as an export earner is very great and is highlighted by the fact that of all Turkish workers going abroad for employment in 1982, 98% were involved with construction work. In 1983, 196 000 Turkish workers were employed by overseas projects.

Creating the opportunities for overseas work

Contractors have to create opportunities to work overseas. Not only must the area in which to work be identified, but the contractor must also have some ownership or competitive advantage to turn the aim into reality. There are various ways in which the contractor can penetrate a market, some of which are discussed below.

1. A contractor may follow consultants or client organizations who are operating in a region. The Western European and American countries have an advantage because of the international approach of their consultants and companies while Japanese contractors follow their key client. But very few Turkish consultants and/or clients operate internationally.

2. Government-to-government loans (i.e. soft loans) for capital investment in construction projects may depend on the donor nation's contractors being invited to submit bids.

Similarly, major trade agreements between governments often involve construction work for those countries that are party to these agreements. However, Turkey offers limited overseas aid and few soft loans.

3. Another possibility is through prospects and opportunities created within the sphere of joint economic cooperation agreements, such as the Turkish–Libyan JEC and the Turkish–Iraqi JEC. In some cases, the expansion of trade has been almost on barter terms with one party exporting goods while the other balances the trade by contracting services. Examples include the Turkish–Soviet cooperation projects, covering the payments for Soviet natural gas by offering construction services.

4. A contractor may obtain an interest in, or outright purchase of, a foreign construction company if it is permitted by the foreign government. However, this would present difficulties for Turkish contractors because of their limited capital base. Most Turkish contractors are not large or rich by international standards and, at a national level, domestic rather than overseas investment by Turkish companies is needed.

5. A contractor can create work by acting as a developer or by providing a financial interest in a project. This has happened in the case of Japanese contractors who have penetrated the USA and Australia by acting as developer/contractors. The concept of developer/contractor is new to Turkish contractors; they have limited experience of international development and again are restricted by their low capital base.

6. A joint venture agreement to form a company between a local construction company and an overseas company is another possibility, as was the case with Laing–Wimpey–Alereza in Saudi Arabia. Turkish contractors' biggest asset, however, is an abundance of labour and this is unlikely to be sufficiently attractive to a foreign partner looking for technology transfer, advanced design capability, management expertise or financial muscle.

7. Military construction projects are highly sensitive and often form part of a defence package. For example, US contractors have undertaken a considerable amount of such work in Saudi Arabia. Similarly, Turkish contractors have found a niche in Libya for such projects.

8. Developing countries seek advanced technology for such projects as the construction of oil platforms, airports and tunnels. This work requires massive investments in research and development. While US, Japanese and West European contractors have acquired such technology over a long period, Turkey has not invested in or developed advanced technology, with the exception of a few leading companies.

9. Finally, some countries, like Saudi Arabia, do not have the labour available to undertake large construction projects. It is here that Turkish contractors have a major advantage. Their ability to mobilize a large flexible labour force provides a strong selling point to countries like Libya and Algeria.

The Turkish economy

Although this paper primarily addresses the involvement of Turkish contractors in the international market, their domestic activities have a major influence on how they export construction (see Tables 3 and 4).

The Turkish economy has witnessed high growth over the last 10 years: World Bank figures show an average of over 4% per annum between 1973 and 1984 as a consequence of rapid industrialization. Between 1965 and 1984, industry's share of GDP shifted from 25 to 33% (with manufacturing changing from 16 to 24%) and services from 41 to 47%, while

Table 3. Macro-economic indicators

	1983	1984	1985	1986	1987
GNP (TLbn) – current prices	11 552	18 375	27 789	39 177	54 085
Real growth (%)	3.3	5.9	5.1	8.0	7.4
GDP (TLbn) – current prices	11 532	18 212	27 551	39 155	50 715
Real growth (%)	3.7	5.8	5.1	8.2	7.3
GDP per head (TL)	240 953	371 143	576 790	759 806	960 693
Real growth (%)	1.1	3.2	2.5	5.7	4.8
Population (millions)	47.9	49.1	50.3	51.6	52.9
Consumer price inflation (%)	32.9	48.4	45.0	34.6	38.9
Exports fob (US\$bn)	5.7	7.1	8.0	8.0	10.2
Imports cif (US\$bn)	9.2	10.8	11.6	11.0	13.3
Current account (US\$bn)	-1.9	-1.4	-1.0	-1.5	1.0
Exchange rate (TL/US\$)	225	367	522	675	837
Exchange rate (TL/£)	342	490	677	990	1 406

agriculture fell from 34 to 19%. GNP has risen by 15% in the last 2 years and the government is continuing to liberate the state-dominated economy.

The tourist industry is half way through its plan to double the number of official bed spaces to nearly 0.75 million by 1990; foreign finance is in great demand to fund hotel and holiday home construction.

Urbanization has followed industrialization. The urban population has grown by about 4% a year, so that now 53% of the population reside in large cities. At least a quarter of the population live in and around Istanbul. Against this background of development is an increasing growth in imports and exports; although the gap between these has narrowed. Turkey has traditionally suffered from a trade deficit as well as a high level of international debt. Also of great significance is the very high level of domestic inflation, the annual rate in the mid-1980s being between 30 and 40% a year.

Turkey suffers from a soaring population. With a 2.5% population growth each year, there are 1.4 million to house and later employ.

The domestic market for construction (see Table 5)

Turkey's domestic market is dominated by housing and infrastructure projects, with over 50% by value of the total workload being in the housing market. Almost 80% of this is in the private sector. Housing work is increasing rapidly, doubling in value between 1981 and 1986. The government has set up a low-cost mass housing fund to support new residential areas in large cities through taxes on luxury imports.

The building boom, of which housing is a significant part, started in 1985, and has absorbed much of the spare capacity of contractors, which has seen the Middle East market shrink in size. The industry does not have the capacity to build the numbers of houses at the speed at which they are required. In 1986, it was estimated that 350 000 new homes a year were required – only half that number were built. As a consequence, the industry is turning to mass-produced prefabricated industrialized housing despite a chronic unemployment

Table 4. Gross fixed investment by sector

	1984 current prices		Percentage volume change over previous years				
	TL (bn)	Share (%)	1981	1982	1983	1984	1985
<i>Private sector</i>							
Agriculture	178.7	13.3	27.5	9.2	7.0	2.1	-11.2
Mining	9.6	0.7	1.3	8.6	4.4	0.7	27.0
Manufacture	372.8	27.6	-2.0	0.6	1.0	5.6	2.8
Energy	10.6	0.8	6.7	3.9	5.7	12.5	2.2
Transportation	270.7	20.1	29.0	12.8	9.3	13.8	5.3
Tourism	15.7	1.2	2.2	6.3	5.7	46.4	57.3
Housing	415.0	30.8	-34.7	4.8	5.0	5.7	17.1
Education	3.0	0.2	6.7	5.6	2.4	9.9	5.8
Health	3.3	0.2	6.0	4.3	1.7	7.1	4.2
Other services	68.7	5.1	4.4	2.2	2.6	11.7	5.7
<i>Total</i>	1348.1	100.0	-8.8	5.5	4.7	7.3	7.0
<i>Public sector</i>							
Agriculture	170.2	9.4	54.6	8.0	-15.2	-5.2	-13.2
Mining	167.7	9.2	37.4	-17.4	19.4	-4.5	24.0
Manufacture	274.6	15.1	-8.5	-15.9	-3.3	-0.6	2.5
Energy	437.1	24.0	4.4	11.6	10.5	0.7	11.7
Transportation	447.1	24.6	6.0	16.7	5.7	5.1	38.4
Tourism	15.8	0.9	21.2	-11.3	20.6	29.1	-18.8
Housing	46.2	2.5	34.9	-27.0	0.9	44.9	0.2
Education	66.7	3.7	22.8	22.0	-11.4	-12.9	25.7
Health	25.0	1.4	36.8	9.7	-28.0	-12.9	0.1
Other services	166.6	9.2	17.6	16.1	-5.7	10.6	30.4
<i>Total</i>	1817.0	100.0	9.4	2.2	1.9	1.4	17.1
Total gross fixed investment	3165.1	—	1.7	3.5	3.0	3.8	12.9

Table 5. Some key statistics

Construction as %GNP (1987)	4.2% at current prices
Housing as %GNP	3.8% at current prices
Unemployment rate (1987)	17.9%
% Total labour force employed in construction (1987)	4.0%
Trade deficit (1987)	US\$3.105 billion

problem that could be alleviated in part by more labour-intensive but slower construction technologies.

The infrastructure is also growing, with more major projects planned to follow the Euphrates Hydroelectric Power and Irrigation schemes and an increase in major road building, to be financed largely through foreign credits to be repaid by motorway tolls. However, in particular areas, other types of work predominate, fuelled by the demand for new and improved industrial facilities, commercial premises and tourism, with hotels and holiday villages being much in evidence. However, with central government becoming concerned at the explosion of local government expenditure on construction, often using overseas finance, investment may have reached its peak.

Turkish contractors

Communications in Turkey, as in many developing countries, are not good. In particular, the deficiencies of the railway system and of transportation by sea lead to dependence on the road network. Although the roads are good between the main cities, roads in more isolated areas have to carry heavy, slow transit traffic, making travel difficult and unreliable. The problems of communication, combined with long distances between major centres of population, have resulted in few large national firms, but the development of many local and regional companies.

By international standards, there are few large companies, although, according to a recent ENR survey, Enka of Istanbul was the tenth largest international firm in 1986, with nearly US\$1500 million of foreign contracts, and six other Turkish firms were in the first 150 top international contractors. The average large firm employs around 900–1000 permanent personnel. Other measures of size, such as value of ongoing contracts and annual turnover, are also low compared to international indicators. Some are vertically differentiated, with subsidiaries producing building materials and components.

The organizational characteristics of contractor firms are assessed in terms of degree of centralization, formalization/specialization, and technology.

Centralization

Turkish firms have always been rather centralized. The reason for this is that owner-managers are usually professionals themselves and are involved in practical work, refraining from delegating authority to subordinate managers. Again, in many cases, the owner-manager supervises details personally, a fact that is partly responsible for the success in overseas countries.

Formalization/specialization

In general, firms are not formalized, partly as a result of their relative youth. The present managers are often the founders of the firm. The widespread use of subcontracting also eliminates the necessity of inter-organizational formalization and specialization, yet provides a core organization with a capacity to undertake work beyond its scope in terms of size and specialization. However, contractors in Turkey are not able to draw on a highly developed subcontracting industry such as is found in Europe and North America and so

tend to specialize by type of work. Whereas Western contractors have become managers or specialist trade contractors, the Turkish contractor is much more reliant upon directly employed labour and basic subcontractors. However, for some companies, this situation is changing rapidly towards the typical European situation. Activities abroad have initiated a number of changes in the typical organizational structure of the firm, e.g. the introduction of more formal procedures due to the clients' requirements about organization.

Technology

Projects abroad have also necessitated formal use of planning and control techniques, with their associated emphasis on the more efficient usage of resources and the need to employ more sophisticated information technology. These techniques have not been used on a wide scale in domestic activities for various reasons.

Since the early 1980s, Turkish firms have been experimenting with technological developments in construction work and developing technical personnel. These have been found to be the key to success in the application of industrialized methods in construction. As with most other construction industries throughout the world, there is a lack of emphasis on R&D activities. Business has been carried on by 'rule-of-thumb' methods, and with a reliance on imported technological innovations. Progressing work is a particular weak point.

Subcontracting

Subcontracting agreements, where they exist, are very different from Western agreements. The approach to the agreement of prices between the contractor and subcontractor follows this sequence:

1. Agree unit price rates for the major items of work with a lump sum fixed price for the total.
2. Undertake the work and measure the quantities for the priced items; the contractor pays the wages of the workers.
3. If the measured work is below the lump sum, the subcontractor receives the surplus amount; if it is above the lump sum, the subcontractor has to negotiate with the contractor.

The reason for such a system can be found by considering the biggest problem faced by the small companies – working capital. The subcontracting system reduces the need for a large capital base by employing the subcontractor as a labour broker who is able to share some of the contracting risk.

Obtaining a licence to operate abroad

The Turkish Government has shown an increasing concern about the number of inexperienced and undercapitalized contractors seeking work in foreign markets. These contractors tend to work abroad with inadequate financial, managerial and/or technical resources, and consequently have faced serious problems, especially in the early 1980s. It has,

therefore, recently been decreed that all contractors must be licensed by the Ministry of Construction before they can operate abroad.

There are four licensed categories of work in the Construction Contractors Regulations issued in 1983:

1. Building, Renewal and Repair.
2. Industrial and Technological Production and Assembly.
3. Design–Engineering–Consultancy.
4. Operation Management and Maintenance.

Contractors will not be licensed if they belong to the following categories:

1. For work under Category 1, contractors whose workload is less than US\$10 million.
2. For work under Category 2, contractors whose workload is less than US\$4 million.
3. For work under Category 4, contractors whose workload is less than US\$1 million.

Additionally, firms with no previous overseas experience are not allowed to bid for contracts worth more than US\$400 million.

Bidding

Some of the key questions in respect of bidding are answered below:

1. *What is the role of the consultant design team?* Architects and engineers produce a detailed design. The drawings are not 100% complete as it is up to the contractor to develop site assembly shop drawing details. In some cases, the consultant may be responsible for project management.
2. *What are the bidding documents?* Specification and drawings with the main quantities provided on major projects. There is no quantity surveying profession and bills of quantities are not tender documents, but schedules of quantities are used. On public sector projects, a priced schedule of rates is provided and the contractor must quote up or down on these rates.
3. *Are most bids lump sum price?* Lump sum fixed price agreements are normal. For larger projects, escalation agreements are common; the government regularly produces an inflation price adjustment index.
4. *Do contractors offer more than a construction service?* Design and build is increasing in popularity, and BOT (build, operate and transfer) projects are also growing. This provides a way of minimizing, for example, government capital investment and places financing with the contractor and private sector.
5. *What bonds are required?* Bid bond and performance bond are normal.
6. *How are bids adjusted?* Because of concern for the high level of business failure in the construction industry, caused in part by low capitalization and low bidding, the public sector has recently adopted a new procedure which selects a contractor with a bid near to the average. The way in which a contractor is selected is not entirely clear, as it would seem that track record and existing workload play some part in the assessment.

Strengths

1. *Location.* The vast majority of work undertaken overseas has been in the Middle East and North Africa. Turkish contracting firms hold certain advantages, although they are also faced by some handicaps. Two factors especially have tempted Turkish construction firms to the Middle East and North Africa: the geographical proximity of Turkey and the psychological proximity, in that most countries share a common heritage and have cultural and religious links with Turkey (see Table 6).

Table 6. Turkey's main trading partners, 1987

	Exports (%)	Imports (%)
OECD countries (mainly Germany, Italy, UK)	48	40
Other OECD countries (mainly USA, Japan)	15	24
Islamic countries		
Gulf countries	21	17
Others	10	5
Eastern Europe (mainly USSR)	4	8
Other countries	2	6
<i>Total</i>	100	100

Cultural ties are particularly strong. Turkish firms are preferred in Saudi Arabia because cities like Makkah and Medina, where new projects are being offered, are barred to non-Moslems. Owing to social and cultural similarities, Turkish workers can socialize with Saudis and not remain isolated from the society in which they live. This situation favourably affects their productivity. Cultural ties and value systems should not be underrated, particularly in countries like Iran, Iraq, Saudi Arabia and Libya.

2. *Manpower.* The main strength of the Turkish contractor is his access to vast human resources. The Turkish contracting firms takes its own labour to its projects. This labour is low cost by international standards; a labourer is paid about US\$10–12 a day with all his accommodation and food provided. The labour force is very mobile and flexible, prepared to work in harsh conditions, and is accustomed to the severity of various climates. Although these advantages may be limited by a lack of systematic training and shortages of qualified labour, unemployment in Turkey is high, and so the opportunity to work overseas is welcomed, especially as the wages are 2–3 times higher than in Turkey. Turkey's approach to earning foreign exchange has been very effective, so much so that it is now affected by the recent policies of some countries which have been restricting the amount of money workers remit to Turkey. For example, Libya insists that not more than 50% of the workers' net wages are remitted directly to their native countries.

3. *Risk.* Turkish contractors are competitive on construction prices, because of their low-wage economy and relatively low overheads. They are also risk takers ready to engage in joint ventures and to enter into new markets. Possibly, this is a reflection of their predominantly private ownership, which allows them to take risks that shareholders and

institutions would not countenance. They are prepared to undertake projects on which the security of payment would alarm a Western contractor. Indeed, delays in payment seem to be accepted by Turkish contractors as part of doing business. Perhaps the pressure of domestic inflation rates, which in recent years have sometimes exceeded 50%, and uncertain employment prospects have engendered a risk-loving attitude to business.

4. *Trade agreements.* As a result of the squeeze on foreign exchange, several oil-rich countries make payments in goods. International construction is increasingly reliant upon barter agreements. Turkey is heavily dependent upon imported energy, so countries such as Libya and Iraq pay in petrodollars. Some countries strike a harder bargain than others: Iraq makes oil payments based upon the spot market prices, whereas Libya sticks rigidly to the OPEC benchmark. Turkish contractors were among the first to accept oil barter terms from both Iraq and Iran, partly because of the transport advantage they enjoy over their rivals. Similar deals involving Russian gas are in prospect, with Turkish contractors building in Russia.

Weaknesses

1. *Uniqueness.* The Turkish lira is not an internationally accepted currency and it is hard to negotiate in overseas markets. The Turkish language is also unlikely to be used in technical specification and drawings. Managerial personnel must therefore be able to speak and operate in a foreign language.

2. *Government strategy.* The Turkish Government does not have an integrated national strategy towards contracting overseas. Contracting companies that go abroad compete without any export credit guarantees provided by the government. The lack of a clear government strategy is revealed in many other ways, e.g. the bureaucracy that affects permission for workers to work abroad, resulting in delays to construction starts and an absence of incentive measures such as tax rebates, low-interest credit and cost subsidies. However, with a mandate issued by the Council of Ministers in 1986, a governmental incentive is offered for the contractors who win international tender competitions.

One of the major needs of Turkish contractors operating abroad is for administrative and political support to be provided by the government. The reason for this need is that usually the other country abstains from making bilateral agreements with Turkish contractors and prefers to seek state guarantees. The provision of government level guarantees when required (which some countries can offer) would strengthen the position of the Turkish firms. Firms from the West and the Far East move into the construction markets, where Turkish firms are engaged in a fierce competition, through the support, assistance and guidance of their governments. Such governments provide support to their firms in many ways, and then organize activities in the client countries through bilateral arrangements with the countries concerned.

Government support is the most common way of undertaking large-scale construction projects under favourable conditions. The fact that Turkish firms go without government support, unlike the firms of other countries, has lowered their chance of winning tenders.

3. *Capitalization.* Turkish contractors, being in general private companies, are not highly capitalized, except for a few leading companies, nor do they use high-technology approaches. Construction tends to be labour-intensive using basic traditional approaches, and so the firms do not export high technology overseas.

4. *Design and engineering.* Most international architectural and engineering design consultants are American, French, German or British, and most of the international standards derive from these countries. When a Turkish contractor works overseas, he must learn a new approach to working and to meeting the specification and quality requirements of both the foreign country and the foreign design team. The quality of workmanship and materials in Turkey is lower than would be expected by foreign consultants. The Turkish contractor's workforce has to be encouraged and trained to work to higher quality standards, and this can be a painstaking experience. Also, foreign design teams often specify materials that are not available in Turkey, thus reducing export opportunities for materials from Turkey.

5. *Finance and guarantees.* Turkish contractors do not have sophisticated contract financing arrangements to call upon in the Turkish banking sector. The competitive power of Turkish contracting firms is dependent, to a large extent, upon the recognition of the letters of guarantee obtained from Turkish banks by foreign authorities and representation at governmental level. In practice, Turkish banks provide Turkish firms with the required letters of guarantee within their own credit lines. However, such letters of guarantee may reveal unfavourable conditions, both lowering the reputation of the country and creating problems for the contractor, who is required to have a foreign bank counter-guarantee the Turkish banks. Furthermore, the interest and commission rates of the bonds established by the Turkish banks are high compared to those of foreign banks. The cost of the bonds is then increased by counter-guarantee. This situation decreases Turkish firms' chances of winning contracts abroad.

Another problem in respect of letters of guarantee is that the credit lines of Turkish banks affect the limit of guarantee they give. In essence, because of the high commission, Turkish banks do not abstain from issuing bonds, but the limit of guarantee, although fairly high in terms of Turkish liras at home, is well below the world average.

The control of letters of guarantee presents another problem. Turkish banks give firms the required bid bonds in return for a certain mortgage within their credit lines. However, in the case of a probable failure, the Central Bank of Turkey is supposed to pay letters of guarantee that are convertible to cash. For this reason, under the auspices of the Central Bank of Turkey, a Bank Risk Fund and Exchange Risk Fund were established. The former is meant to meet the risks faced by the banks, and the latter to meet the exchange risks that might occur as a result of the contractor's activities abroad.

6. *Insurance problems.* Generally, firms that operate in construction markets where there is fierce competition enjoy a variety of insurance systems. Turkish firms, on the other hand, lack similar insurance which will protect them in case of any risk by devaluations, or political changes in the client country.

The Bank Risk Fund and the Exchange Risk Fund mentioned earlier constitute an indirect insurance system for handling local and foreign currency risks that may arise from letters of guarantee received by contractors for their contracts abroad. However, only 50% of payments in local or foreign currency owed to the client because of letters of guarantee may be met by the Funds cited above. In this sense, the arrangements described are meant to protect banks and to control the issuing of letters of guarantee.

7. *Credit problems.* The working capital of Turkish contracting firms is low, giving them a great disadvantage when they compete with major international contracting firms, which

have a sound capital structure and a large equipment fleet. Turkish firms have relatively little equity and limited construction equipment. Their expenditure depends almost entirely on reimbursement and advance payments, highlighting the importance of external and internal credits for contracting firms operating abroad.

One of the major problems facing contractors working abroad is delay in receipts for works completed, due to the payment difficulties of the client country. Some client countries such as Libya have offered crude oil as a new type of payment.

The national banks of firms working in construction markets in which Turkish contracting firms operate, provide credits at low interest rates for their own firms. They also help their home contractors with finances for overseas branches.

The external and internal credit opportunities of Turkish firms are restricted by the exchange regulations effective in Turkey. Turkish banks provide Turkish firms with short-term finance from their own exchange stocks. However, because these incur high interest charges, contractors prefer not to use these credits unless they have to. According to the prevailing regulations, Turkish contractors are not able to keep advance payments as foreign currency in a bank account in Turkey and to have it transferred abroad as foreign exchange when they need it; for this reason, and because of the relatively low interest rates of Turkish banks, firms are directed to Western banks.

In 1983, an opportunity was created, by a mandate issued by the Ministry of Finance, for Turkish firms involved in contracting services abroad to obtain credit in foreign and local currency. Thus, firms will be able to use credit in local currency by showing their foreign currency as a letter of guarantee, but without having to change their foreign currency.

Apart from these facilities, a mandate issued by the Council of Ministers in 1986 also enables Turkish firms to survive in the competitive climate overseas. According to this, the Central Bank of Turkey will be able to purchase the bonds given to Turkish contractors in return for the progress payments for work to be performed. Such bonds are supposed to carry the guarantee of the client country or an authorized institution representing the country concerned, and to be prepared in currency acceptable by the Central Bank of Turkey. In order to make use of this opportunity, the following conditions have to be fulfilled:

- The firm proposing the project should be a Turkish firm with experience at home and abroad and with the capacity for carrying out the project concerned. Moreover, the project should be undertaken by the firm not as a subcontractor, but either as a main contractor or a consortium.
- The portion of the project under the responsibility of the Turkish firm should not be under US\$100 million.
- The contribution of the project to the Turkish economy should be shown through a feasibility study.
- Of projects that fulfil these conditions, a maximum 50% of the portion under the responsibility of the Turkish firm may be financed by the Central Bank of Turkey. The term of the bonds may be 8 years at the maximum. This facility has so far been applied in Algeria and Iraq.

8. *Foreign trade and customs regulations.* Some problems facing Turkish contractors overseas stem from the differences in foreign trade and customs regulations between the client countries and Turkey. In some instances, firms are not able to export the machinery and investment goods they own at home. As a result, they are obliged to incur advanced payments for buying equipment and materials. This seriously affects firms whose financial

resources are limited. At the same time, the customs regulations of some client countries prohibit the exportation of machinery and other investment goods to the contractor's country at the end of the contract period. Therefore, firms are obliged to sell machinery and investment goods instead of utilizing them at home for future contracts in which they might be needed. A solution to this problem was provided, to some extent, by a mandate established by the government in 1983, which entitled firms to import machinery and other investment goods from abroad, within certain limits.

Depreciation allowances on plant and equipment is another area of difficulty. According to present regulations, annual depreciation amounts on equipment used abroad must be transferred home within 3 months after the trading (working) year. However, the transfer of these amounts is an additional burden to Turkish firms, as the regulations of client countries do not entitle them to an allowance for depreciation.

9. *Competition.* Despite their advantages, Turkish firms also face certain difficulties, the most important of which is the competition. In recent years, the influx of Pakistani, Indian and Bangladeshi engineering and construction companies into the market, competing on very low labour costs, has been rapid. For instance, the comprehensive technical and management skills of Korean firms in civil construction abroad provide them with extra strength as a major competitor to Turkish companies. In addition, the South Korean Government licenses companies to operate in the region and still keeps an effective controlling hand on tendering. Only two Korean companies can bid for the same contract. Favourable financing arrangements through South Korean banks at rates lower than the domestic bank rate also help competitiveness against European and Japanese companies. The diversification strategy employed by the Koreans, which has put them in an advantageous position, is now being imitated by Turkish construction firms.

10. *Employment problems.* Although construction activities abroad create new opportunities for the solution of the unemployment problem in the domestic market, a lack of qualified personnel remains an obstacle facing firms operating abroad. In addition, firms are faced with problems in sending workers abroad. Obtaining permission to leave the country requires heavy bureaucratic operations and takes months. This results in delays in the commencement of construction. Sending workers abroad is under the authority of the Employment Office. Recently, however, certain arrangements have been made to facilitate this process.

Social security regulations for workers in Turkey are usually different from regulations in client countries, which may also lead to difficulties. However, a mandate issued in 1986 to the Council of Ministers established a fund to support Turkish workers who had financial difficulties while working abroad. This fund consists of 2% deductions from the payment and other revenues.

Some difficulties still exist in the transfer of remittances, especially remittances for personnel employed by Turkish firms, although such transfer has been made easier in recent years. A total of 30% of the wages of the personnel employed by the firms are supposed to be retained by the employer and directly transferred to Turkey in foreign currency. However, bureaucratic obstacles prevent the monthly transfer of this amount to Turkey. Also, according to the Libyan regulations, it is impossible to transfer 30% of the wages earned in Libya. In accordance with the laws in Libya, Libyan authorities oppose any stoppage applied to wages earned.

Conclusions

Overseas projects

One of the most serious problems for the Turkish construction industry is its very narrow spread of operations, with 87.5% of its work being based in Libya and Saudi Arabia and a further 12.5% in Iraq. These countries are vulnerable to economic and political changes, as in 1986 when as a result of the fall in oil revenues, there was a major decline in the number of contracts awarded to Turkish contractors. There must be a doubt as to whether Middle East countries will remain a sizeable export market for Turkey. It is expected that Middle East projects will get smaller, requiring a shift in marketing, financing and resourcing of projects. On the smaller projects, there is doubt whether the massive labour resources of Turkey will provide a competitive edge as they have with larger projects, or whether quantity will have to be replaced by quality. Inevitably, such markets will become more competitive as most countries develop their own construction capabilities and become more patriotic.

A good deal of hope is fixed on the major infrastructure and housing markets in Iran and Iraq which may emerge following the end of the Gulf War, and in Lebanon following the end of civil strife. These markets may well replace those which are currently drying up in Libya and Saudi Arabia. At the same time, it is recognized that markets for medium-sized projects exist in North Africa, Nigeria, Sudan, Egypt and Djibouti. However, these would require very flexible financing of a type that so far has not been developed by Western countries and banks. Here, perhaps, there is a real opportunity for Turkey with its greater willingness to live with delayed payments and risky projects.

In reviewing these opportunities, the real weaknesses of the Turkish construction industry are revealed: the difficulties relating to project financing arising from a combination of government policies; the standing of Turkish banks and letters of guarantee; and a general low level of capitalization. It is in this area that there is a real threat from other low-wage competitors such as Korea. Such competitors may not only enjoy better government support for finance but may benefit from government-sponsored initiatives to develop sophisticated techniques and know-how.

Another issue is the internal tension between domestic construction needs and export markets for construction. With rapid industrialization and urbanization in Turkey, there is a prospect that domestic markets will become more attractive, especially as export markets become more competitive. Indeed, such domestic growth may result in clients from Western countries being attracted by low labour cost manufacturing and processing in Turkey. On the other hand, Turkey can ill-afford to turn its back on the export-earning activity of construction. Here, too, there is a role for government to help maintain a balance between domestic and overseas construction work and to stimulate the development of the industry in such a way as to exploit both domestic and export opportunities simultaneously. The level of industrial development and urbanization in Turkey is such that industrialized construction systems developed for the domestic market could be applicable in many other countries in the Middle East and North Africa. However, the development of a programme of industry technology enhancement that is both transferable and competitive will require much foresight and confidence.

Domestic prospects

Commentaries on the future of the Turkish industry range from the optimistic to the pessimistic. Optimism is gained from recent political and social developments, the

liberalization of trade and industrialization in export-related industries, rather than in industry as a whole. Turkey's economy has grown more rapidly than that of other European countries and growth is forecast to continue. In the longer term, population growth of over 2% a year and a consequent decrease in the age of the population is seen as important in creating pressure for further change, greater industrialization, urbanization and consumerism.

While much of Turkey's growth has come from industrialization, the future impact on agriculture and food processing of major irrigation schemes is also likely to be substantial, with a potentially beneficial impact on exporting to the Middle East and Central Europe.

However, optimism rests on two related assumptions – that there will be a broad continuation of existing policies towards the liberalization of political and social institutions and of existing industrial policies, and that the European Community will respond favourably to Turkey's application for full membership of the EEC. Clearly, the ingredients for a halt to industrial progress are very real: uncertainty, high inflation, balance of payments and debt problems, high levels of unemployment among the young population are but a few of the issues. The tightrope on which Turkey walks is one that is of considerable importance to its construction industry both at home and overseas.

Looking towards a more favourable scenario, it is clear that it is only through a very effective and responsive industry that the construction needs of Turkey will be met. While industry displays the full range of technological and managerial skills, its sophistication is limited by the relatively underdeveloped managerial, technical and supervisory roles. Although historically this may have been a consequence of the privileged nature of secondary and higher education in Turkey, present difficulties stem from the developing nature of technical and vocational education. In particular, students are not always guided into the most appropriate courses. Despite the strides that have been taken in the past 20 years, the educational gulf that exists between Turkey and the rest of Europe is considerable. In 1983, 38% of children aged 12–17 were enrolled in secondary schools and 7% of those aged between 20–24 were enrolled in higher education. For comparison, in the UK, the respective figures were 85 and 20% and for the US 100 and 56%.

Growth in the domestic construction industry is limited, even with the assistance of industrialized building methods. For sophisticated projects funded from overseas, for example by the World Bank, there is scope for the input of project management advice from consultants and contractors from the developed world. Nevertheless, there is clearly a need for the more comprehensive training and development of local construction industry personnel. This is an issue that requires action by both government to develop an appropriate infrastructure for training and systems for training delivery, and by industry to ensure that training does indeed take place.

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