FEMISE RESEARCH PROGRAMME

Investment, Labor Market and Trade Regulation in Turkey

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INVESTMENT INCENTIVES AND CONDITIONS OF COMPETITION IN TURKEY

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Since the mid-1960's, the Turkish Government has promoted investments through various incentives. The purpose of the paper is to analyze the effects of investment incentive and taxation system on conditions of competition and hence on competitiveness in Turkey. After assessing the subsidy to industry provided through the investment incentive and taxation system, the analysis concentrates on the study of market structure. Section 1 describes the investment incentive scheme, and section 2 the corporate tax system in Turkey. In section 3 the paper assesses the investment incentive scheme using the marginal effective tax rate (METR) analysis. The effect of the investment scheme on market structure is studied in Section 4.

1. Investment Incentive System

Since the adoption of the First Five Year Development Plan in 1963, Turkey has encouraged economic activity through a complex system of incentives. Besides assisting domestic production through import licensing, quantitative restrictions on imports and overvalued exchange rates Turkey has used direct production incentives. Consideration of these incentives reveals that the government, in order to promote investment in activities and areas regarded as desirable, has granted a number of incentives. The incentives regulated by laws and decrees, have been directed to reducing the cost of investment, reducing the need for external financing, and increasing profitability.

There are certain peculiarities of the incentive scheme. First, incentives are differentiated on a regional basis. For the purpose of incentives, Turkey has been divided into three regions: "developed regions" consisting of the provinces of Istanbul and Kocaeli and the municipal districts of Ankara, Izmir, Bursa, Adana, and Antalya; "regions with special priority in development" consisting of provinces like Corum, Sivas, Tokat, Van, Agri and Kars determined by the resolution of the Council of Ministers; and "normal regions" consisting of provinces except for the regions with special priority in development and developed regions. Secondly, incentives are differentiated by sectors. According to the Decree 98/10755 concerning government subsidies, issued in the Official Gazette on March 25, 1998 sectors with special importance include education, health, international transportation, research & development, electricity energy production, infrastructure investments, investments in industrial zones and investments to be made with build-operate-own and/or build-operate-transfer models. The third characteristic of the incentive system is that all incentives originate from central government. The agency which administers the incentive scheme is the Undersecretariat for Treasury. The incentive scheme is implemented on the basis of

"investment incentive certificates" (IIC) granted by this agency. Only the investments with IICs are eligible for incentives. The fourth specialty of the incentive scheme derives from certain conditions on lower limits, investment totals, minimum level of own sources and exports, that must be fulfilled in order to benefit from various incentives. The minimum equity rates for benefiting from investment incentives are set as 40 percent for investments realised in regions with special priority in development, 50 percent in normal regions and 60 percent in developed regions, and 15 percent in investments of ship construction, yacht construction, ship and plane imports. For investments to be supported by IIC, the minimum fixed investment amount should be 50 billion Turkish Lira in high priority regions and 100 billion Turkish Lira in other regions. Furthermore, the Resolution No. 99/12474 of the Council of Ministers published in the Official Gazette of March 5, 1999 defines Small and Medium Size Entities (SME) as enterprises operating in industry which employs a maximum of 150 workers, whose total value of physical assets excluding land and buildings is less than 100 billion Turkish Lira. The SME's are eligible for IIC. The various types of investment incentives provided during the period 1999-2000 can be summarized as follows.

1.Investment Allowance: The investment incentive allowance is a deduction from the taxable income for corporate tax purposes. The allowance comprises a certain percentage of the cost of machinery, equipment, instruments, building, and other depreciable capital assets, which is deducted from the company's taxable income. According to the annexed third article of Chapter 8 of the Income Tax Code No. 193, investments allowance could apply on investments that are realized in sectors with special importance and/or in regions with priority in development and organized industrial regions at a rate of 100 percent. The Council of Ministers is able to increase the investment allowance rate to 200 percent in investments that exceed the Turkish Lira equivalent of $ 250 million.

2. Value Added Tax (VAT) Support for the Purchase of Machinery and Equipment: The delivery of machinery and equipment within the scope of investment IIC has been exempted from the VAT.

3. Exemption on Taxes, Fees and Duties: If an investment was guaranteed to generate a certain level of exports, then the loans made for this investment and related transactions would receive exemptions from taxes, fees and stamp duties.

4. Customs Duty and Housing Estate Fund Exemptions: The imports of machinery and equipment within the scope of IIC is exempted from Customs Tax and Mass Housing Fund paid in accordance with the Decree on import regime. Raw materials, semi-processed materials and management materials cannot benefit from customs duty and fund levy exemptions

5. Energy Subsidy: Energy subsidies are given to new investments in certain sectors realized in regions having priority. 25 percent of the electricity consumption in the 5 years of operation may be subsidized from the sources of "Encouragement of Investments and Services Providing Foreign Exchange Earnings Fund"

6. Land Allocation: Land has been allocated by the government for tourism investments. Lately, upon request, land is to be allocated by the government for investments undertaken in regions enjoying priority in development.

7. Credit Allotment from the Fund: The credit allotted from the "Investment Encouragement Fund" will be supplied for supporting and guiding investments that aim for regional developments and investments of small and medium sized entities related with research and development, technopark, protection of environment, and technological investments with priority determined by the Science and Technology Supreme Council, within the framework of state aids on investment and related legislation.

The government through the use of the above mentioned and similar other incentive measures has been able to reduce the effective cost of borrowing to investors thereby reducing the cost of investment, and thus increasing the profitability of investments.

2. Tax System

The Corporation Tax Code applies to the profits earned by companies with share capital (joint stock companies, limited companies, limited partnerships), cooperatives, state-owned companies, economic enterprises owned by associations and foundations, and mutual funds and investment trusts. Profits of companies subject to corporations tax are calculated in accordance with the provisions of Articles 40 and 41 of Law No. 193, the Income Tax Law. This law specifies that all business related expenses and income must be included when calculating taxable income, and the accrual method of accounting must be used. Only realized earnings constitute the taxable income.

The main tax procedural law that is currently in effect is the Tax Procedures Code (Statute 213) which contains provisions regulating procedures concerning among others methods that apply during the valuation of assets, liabilities and payables.

The Tax Procedures Code requires that fixed assets be valued at cost while payables and receivables denominated in Turkish Lira should be valued at their carrying value. According to the Code depreciation is allowed on both tangible and intangible assets. Three methods of depreciation are allowed: straight-line (SL) method, declining-balance (DB) method (including the double declining method) and extraordinary depreciation method. Under SL method depreciation on moveable fixed assets may be taken at any rate chosen by the tax payer, up to an annual maximum of 25 percent. If the DB-method is employed, the maximum allowable depreciation rate is increased to 50 percent. Once a rate is selected it cannot be changed in subsequent years. Under extraordinary conditions the Ministry of Finance may determine a specific rate for the enterprise. The tax payer can switch from DB-method to SL during the life of an asset. The option is applied on an asset-by-asset basis. The depreciation rates for some fixed assets that have short useful economic lives are determined by the Ministry of Finance. Typical allowed rates of depreciation are 35-50 percent for furnitures and fixtures, 40 percent for assets related to certain food industries (biscuits, chocolate) and 50 percent for assets related to the liquid oil or gas industry. In order to protect the asset side of the balance sheet

from inflationary erosion, the Turkish corporate income tax system introduced at the end of March 1987 complete inflation adjustment of depreciation allowances. The revaluation rates are determined annually by the Ministry of Finance as the average increase in the WPI.

The inventory costing methods permissible are the first-in-first-out (FIFO) methods, last-in-first-out (LIFO) method or specific identification of historical cost of inventories priced at the lower of cost or market value. Capital gains earned from the sale or disposal of fixed assets subject to depreciation are taxed at the normal rate of corporation tax, but may be deferred for three years. Gains are not taxable to the extent that the proceeds are reinvested in new fixed assets.

Regarding the indexation of the liability side of the balance sheet we note that nominal interest payments are deductible from corporate taxable income. A small but incomplete step was taken in 1994. Under the new corporate income tax code, companies engaged in retail and wholesale business have to add 25 percent of a proxy for the inflation component in interest payments to their taxable income. The discrimination in favor of debt finance increases as inflation rate rises because no distinction is made between real interest rates and the inflationary erosion premium contained in nominal interest payments. Finally note that losses incurred during the current year can be carried forward and deducted against income for a five-year period, but they are not indexed.

The Turkish corporate income tax code was first passed in 1949 and amended many times thereafter. Until 1985 companies were subject to a tax of 40 percent on their taxable income. The rate was increased to 46 percent in 1985. A 10 percent withholding tax was imposed on earnings exempt from corporation tax. In December 1993, legislature eliminated most of the tax exemptions, introduced partial inflation adjustment for interest payments and reduced the corporate tax rate from 46 percent to 25 percent, but added a general income tax on the corporate after tax income. The general income tax was 10 percent for companies listed on the stock exchange and 20 percent for unlisted companies. This implied a net reduction of 6 percentage points for unlisted companies from 46 percent to 40 percent. For listed companies the reduction was larger. The combined rate was 32 percent. The legislation stipulated that corporate income tax should not be less than 20 percent of corporate profit. Furthermore 70 percent of the assessed corporate tax was collected as advance tax payments in twelve installments.

The level of tax rates as of 2000 are determined through the provisions of Law No. 4369 enacted in July 1998. According to the Law the corporation tax rate is 30 percent of taxable profit on top of which there is a 10 percent fund bringing the aggregate rate to 33 percent. In the case the corporation distributes the dividends to shareholders, a withholding tax of 10 percent of the after tax profit, on top of which there is a 10 percent fund, bringing the total tax burden to 40.37 percent. Since the withholding tax amounts to 0 percent in the case of publicly owned companies their total tax burden is only 33 percent.

3. Effects of the System of Taxation and Investment Incentive Scheme

To assess the effects of the investment incentive scheme and of the system of taxation in Turkey we consider a hypothetical investment project. The analysis is based on the approaches of King and Fullerton (1984), OECD (1991), and Dunn and Pellechio (1990). The project is assumed to incur all of its investment costs in the year before the project generates income, namely year 0. Thereafter the project generates a stream of operating income from year 1 until the end of the operating period, namely period T. The levels of operating income are chosen so that the project generates a real before tax rate of return of r percent on the equity invested in the project. Next we determine the real after-tax rate of return r_{at} that will be attained under the prevailing system of taxation, which we call the base case. Finally, we consider the real rate of return $r_{at\&s}$ that will be attained under the prevailing tax system and the various investment incentives schemes. The marginal effective tax rate (METR) is then calculated as

$$METR = (r_{at\&s} - r_{at}) * 100 / r_{at}$$

Let I_0 denote the amount of investment at time t=0. The project consists of investment in land, buildings, machinery & equipment and vehicles. The shares of these assets in total investment are α_1 percent for land, α_2 percent for buildings, α_3 percent for machinery & equipment and α_4 percent for vehicles. Rate of economic depreciation is assumed to amount to g_1 percent for land, g_2 percent for buildings, g_3 percent for machinery & equipment, and g_4 percent for vehicles. Each year the company, in order to preserve the productivity of investment, engages in replacement investment, which equals the rate of economic depreciation of the assets concerned. The real value of economic depreciation at time t (t=1,..,T) equals $(g_1\alpha_1 + .. + g_4\alpha_4) I_0$. Denoting by π the annual rate of inflation, assumed to remain constant over time, the economic depreciation and hence replacement investment at time t measured at current prices is obtained as $I_t = (g_1\alpha_1 + .. + g_4\alpha_4) I_0 (1+\pi)^t$ for (t = 1,2,3,...).

In the model the before-tax (BTCF) and after-tax (ATCF) cash flows at time t are written as:

$$BTCF_t = -E_t + R_t - W_t - Mat_t - Int_t - Prin_t + NetSalesofAssets_t$$

$$ATCF_i = BTCF_t + InvCred_t - ta\,(R_t - W_t - Mat_t + InvCred_t - Dep_t - IntDed_t - Carryover_t + Capgain_t + NomInvGain)$$

where E_t denotes the amount of equity used to finance the investment in year t including the part of replacement investment, R_t investment income, W_t wage cost, Mat_t expenditures on materials, Int_t interest paid on debt, $Prin_t$ payment on principal, $NetSalesofAssets_t$ net revenue from sales of assets, ta statutory plus any surtax tax rate, $InvCred_t$ investment credit in year t, Dep_t depreciation allowance taken in year t, $IntDed_t$ interest deductions in year t, $Carryover_t$ carryover losses in year t, $CapGain_t$ capital gains in year t, and $NomInvGain_t$ nominal gains on goods held in inventory in year t.

In the case of all equity finance we have $I_0 = E_0$, $Prin_t = 0 = Int_t$ for all t=1,2,... and equity issue used to finance the investment is zero for t=1,..,T. We assume for the purpose of simplification that $W_t = Mat_t = 0$ for all t. Given the "real before tax rate of return" (r) and the initial level of investment I_0 the "real before tax cash flow" is determined as rI_0 and the "nominal before tax cash flow" as $rI_0(1+\pi)^t$ for (t = 1,2,3,...). Hence in the first equation the value of $BTCF_t$ is determined as "nominal before tax cash flow". To determine the net sale value of assets at the end of operating period T we define the sale price of capital at time t as the sale price of capital at time t-1 plus the replacement investment at current cost at time t minus economic depreciation at current cost at time t. Since by hypothesis replacement investment equals economic depreciation for all t the sale price of capital equals $I_0(1+\pi)^{t-1}$ for t=1,2,..Since capital is sold at the end of operating period $NetSalesofAssets_t$ is positive for the operating period and zero otherwise. Since the value of $EconDep_t$ is determined by the approach described above, R_t the investment income in year t is determined as the value that balances the equation.

In the debt financed case we assume that the company borrows initially to finance part of the investment and pays back the debt in equal installments over the life time of the project. We consider the percentage of initial investment financed by debt as a given constant parameter. Given the initial value of debt denoted by D we assume that this debt is to be paid back in equal annual installments of A over the life of the project. Let i be the nominal rate of interest on debt given by $i = (1+r)(1+\pi)-1$ where r is the "real before tax rate of return" on investment. Then the annuity is obtained as

$$A = \frac{iD}{\left[1-\left(\frac{1}{(1+i)^T}\right)\right]}.$$

Given the amount of debt in period t-1, D_{t-1} , we subtract the interest payments on this debt from the annuity A and obtain payment on principle as $(A - iD_{t-1})$. Thus the evolution of debt over time is given by

$$D_t = (1+ i)\, D_{t-1} - A.$$

As revealed by the first equation the interest payments on debt iD_{t-1} and principle payments on debt $(A - iD_{t-1})$ are subtracted from the before tax cash flow.

The after-tax cash flow equals the before tax cash flow minus taxes paid plus credits. The statutory tax rate plus any surtax rate are multiplied by taxable income. to yield the regular tax liability. Taxable income in Turkey equals investment income plus investment credits, minus depreciation allowances, investment deductions and interest deductions. A positive taxable income may be reduced by losses being carried forward. Furthermore when the asset is sold capital gains or losses are included in the taxable income.

Regarding depreciation we note that the model in principle considers three methods of depreciation: straight line depreciation (SL), declining balance depreciation (DB) and double DB-depreciation with switchover. In the case of SL-depreciation we denote by d_i the straight line depreciation rate of the asset i. The straight line basis equals I_0 at time t=1, and $D_t = I_0 + I_1 + .. + I_{t-1}$ for t=2,3,.... Then SL-depreciation in real terms at time t equals $d_i D_t$. Under DB-depreciation we consider for each type of asset (buildings, machinery & equipment, vehicles) the original and replacement investments at different time periods as different investments because of the inflation factor. Book value of original investment at time period t is calculated as book value of the investment at time t-1 minus the DB-depreciation. DB-depreciation at time t is determined as declining balance depreciation rate multiplied by the book value in period t-1. Finally, under double DB-depreciation with switchover we consider for each asset the difference between double DB-depreciation and SL-depreciation. During the time period when this difference turns to a negative number we switch over to SL-depreciation.

The nominal after-tax rate of return is the internal rate of return for the after-tax cash flow. This rate is then adjusted for inflation to yield the real after-tax rate of return denoted by r_{at}. Using a similar procedure we obtain the real rate of return $r_{at\&s}$ that will be attained under the prevailing tax system and the various investment incentives.

4.1 Base Solution and Incentives during the year 1999

We consider a typical investment project. It is an investment in land, buildings, machinery & equipment and vehicles with shares of 10 percent in land, 25 percent in buildings, 65 percent in machinery & equipment and 0 percent in vehicles. The Undersecretariat of Treasury, which administers the investment incentive scheme, issues the "investment incentive certificates" (IIC) usually for a subset of these investment expenditures. Not all expenditures are considered as eligible for IIC. Studies by the Undersecretariat of Treasury reveal that on average 20 units of investments amounting to 120 units are found to be non-eligible for IIC. The 100 units of investment expenditures eligible for IIC are assumed to have the shares specified above. Considering the non-eligible 20 units of expenditures as part of investment in land we have the adjusted shares as $\alpha_1 = 25, \alpha_2 = 20.83, \alpha_3 = 54.17$ percent and $\alpha_4 = 0$. The initial level of operating income is chosen so that the project generates a real before tax rate of return of 20 percent. Following Dunn and Pellechio (1990) we assume that the economic depreciation rate of buildings, machinery and equipment and vehicles equals 3.6, 12.5 and 30 percent respectively, and that straight line depreciation rate equals the economic depreciation rate for the assets considered. The operating period of the project equals thirty years.

In Turkey corporation tax is assessed on the basis of Law No. 5422, first passed in 1949 and amended various times. According to Law No. 4369 enacted in July 1998 the corporation tax rate was 30 percent of taxable profit during 1999. On top of this corporation tax there is a ten percent fund payment bringing the total aggregate tax rate to 33 percent. In case resident taxpayer corporations distribute dividends to shareholders, a withholding tax

of eleven percent on after tax profits, including fund levy, is applicable. The withholding in question is zero percent for publicly owned companies. In the event that such corporations do not distribute dividends and/or add it to the capital, there will be no question of a withholding liability. In this paper we consider the case of a private company that distributes total profits as dividends. Given the corporate tax rate of 30 percent and fund rate of 3 percent, the after tax profits of 100 units of pre-tax profits amounts to 67. The withholding tax on distributed dividends amounts to 6.7 and the fund levy 0.67 percent. As a result the total corporate tax burden equals 40.37 percent.

During periods of inflation indexation of depreciation allowances, interest deductions, interest earned, carryover of losses and unused tax credits, and capital gains turn out to be of prime importance for maintaining the real value of various elements of the tax system. This model fully indexes the system by insulating the system completely from the effects of inflation. The inflation rate in the model is taken as the 1999 WPI inflation rate of 72.3 percent.

In the base case we assume that there are no investment incentive allowances. The value added tax rate is 15 percent. Following Karakoyunlu (1987) we assume that the tax, duty and charge associated with financial transactions amounts to 4.4 percent of the loan extended. We assume that 70 percent of machinery and equipment is imported. Using the input-output table of 1990 prepared by the State Institute of Statistics and the nominal protection data of Togan (1997) the average customs tax on imports of investment goods is estimated as 1.06 percent.

Incorporation of the investment incentives into the model is achieved as follows. We consider four incentives: (a) investment allowance, (b) value added tax (VAT) support in purchase of machinery and equipment, (c) tax, duty and charge exemption, and (d) customs duty exemption. We abstract from consideration of energy subsidy, land allocation and credit allocation from the fund. The government has allocated relatively limited resources to fund credit and land allocation is important for specific projects such as tourism.

The investment incentive allowance comprises a certain percentage of the cost of machinery, equipment, instruments, building, and other depreciable capital assets, which is deducted from the company's taxable income. The investment allowance applies on investments that are realized in sectors that carry special importance, sectors with priority in development and organized industrial regions at a rate of 100 percent and at a rate of 200 percent on industrial investments that exceed the TL equivalent of US$ 250 million and include at least two of the following qualities: (i) requiring high technology, (ii) having a high value added, (iii) increasing tax earnings and employment, and (iv) enabling the country to compete internationally. The VAT support exempts the delivery of machinery and equipment from the value added tax of 15 percent. In the case of projects without IIC the importer had to pay the VAT. In that case the importer could claim the VAT back but only gradually, in equal instalments over three years without any adjustment for foregone interest or even inflationary erosion. Given the VAT rate of 15 percent and annual payments of 5 units per annum the subsidy provided to IIC holder through VAT support could be calculated as

$$15 - \frac{5}{(1+r)} - \frac{5}{(1+r)^2} - \frac{5}{(1+r)^3}$$

percent, where r denotes the rate of interest. The tax, duty and charge exemption is an incentive for exporters. If an investor undertakes to generate a certain amount of foreign exchange through export, the loans extended for this export will be exempt from taxes, duties and fees amounting to 4.4 percent of the loan extended. Finally, through the customs duty exemption the import of the machinery and equipment listed in connection with an Investment Encouragement Certificate is exempted customs tax and the mass housing fund.

Table 1 shows the effect of investment incentives on the rate of return and METR under two financing structures (all equity and half equity-half debt). The table reveals that the VAT support results in an increase of the rate of return from 10.3 to 12.5 under all equity and from 10.1 to 12.6 percent under half equity-half debt financing. Investment allowance of 100 percent increases the rate of return from 10.3 percent to 12.2 percent under all equity financing and from 10.1 to 12.1 percent under half equity-half debt financing. The 200 percent investment allowance increases the rate of return from 10.3 to 12.6 under all equity financing, and from 10.1 to 12.1 percent under half equity-half debt financing. The tax, duty and charge exemption and customs duty exemption have minor effects. The combined effect of the investment incentives under 100 percent investment allowance increases the rate of return from 10.3 to 15.1 percent under all equity financing, and from 10.1 percent to 15.8 percent under half equity-half debt financing. These results when expressed in terms of METR indicate that under equity financing METR increases by 0.97 percent under customs duty exemption, 18.45 percent under 100 percent investment allowance and 21.36 percent under VAT support. Similarly under half equity-half debt financing METR increases by 0.99 percent under customs duty exemption, 2.97 percent under tax, duty and charge exemption, 19.8 percent under 100 percent investment allowance and 24.75 percent under VAT support. The table reveals that subsidy rate of investment incentives equals 4.8 percent under all equity finance, and 5.7 percent under half equity-half debt finance. Assuming that 50 percent of all investments in Turkey are equity financed and 50 percent half equity-half debt financed, the average subsidy rate is calculated as 5.25 percent.

Table 2 shows sectoral classification of investment incentives issued by the Undersecretariat of Treasury during 1999. The table reveals that during 1999 the sectors that have been granted most of the investment incentives are transportation sector with share of 22.9 percent, other services with 10.5 percent, tourism with 6.4 percent, and machinery with 6 percent in total value of investment incentives. Table 3 shows the gross fixed investment expenditures of the private sector during 1999. From the table it follows that during 1999 services, textiles and clothing, agriculture, energy and soil products sectors had the highest shares in total private sector fixed investment expenditures. From column 8 of Table 7 showing the shares of IIC in gross fixed investment expenditures of the private sector it follows that IIC has fallen short of the actual investment expenditures in some of the sectors. In those cases we have multiplied the subsidy rate of 5.25 percent with the IIC value. Whenever the share was greater than unity we multiplied the subsidy rate of 5.25 percent with the fixed investment expenditure value of the private sector. The average subsidy rate for the sector is then obtained by dividing the

subsidy thus obtained by the value of investment expenditures in that sector. Weighting the sectoral subsidy rates by the shares of actual sectoral investment expenditures in total investment expenditures we obtained an average subsidy rate of xxx percent for the manufacturing sector.

4.2 Base Solution and Incentives during the year 1987

The project considered is the same project analysed above. It is an investment in land, buildings, machinery & equipment and vehicles with shares $\alpha_1 = 25, \alpha_2 = 20.83, \alpha_3 = 54.17$ percent and $\alpha_4 = 0$. We assume that economic depreciation rate of buildings, machinery and equipment and vehicles equals 3.6, 12.5 and 30 percent respectively, and that the straight line depreciation rates equal the economic depreciation rates for the assets considered. The project is assumed to generate a real before tax rate of return of 20 percent and the operating period of the project is supposed to be thirty years.

During the year 1987 the corporate income tax rate was 46 percent. Since there were in addition supplementary levies up to 7 percent of the basic tax, the overall tax rate amounted to 46 x 1.07 = 49.2 percent. During 1987 depreciation allowances were based on historical costs, adjusted to reflect the rate of inflation minus 10 percent. At that time nominal interest payments were deductible from taxable income, but with no adjustment for inflation. Deduction for cost of goods sold from inventories were based on historical costs, with no adjustment for inflation. Capital gains were taxed at the corporation income tax rate. In the model the inflation rate is taken as the average 1986-1988 WPI inflation rate of 51.6 percent.

The investment incentives are incorporated into the model through nine incentives: (a) investment allowance, (b) postponement of the value added tax (VAT), (c) cross subsidisation scheme operated under the Export Encouragement Fund, (d) tax, duty and charge exemption, (e) customs duty exemption, (f) payments from Resource Utilisation Support Fund, (g) low interest investment credits, (h) accelerated depreciation, and (i) financing fund.

Table 4 shows the regional and sectoral differentiation of investment allowances. Investment incentives ranged from 30 percent to 100 percent depending on the region and sector. Regardless of location 100 percent initial allowance was granted for incentive industries. These industries during 1987 comprised energy, electronics, communications, medical equipment, most agricultural and related investments, tourism, and education. Projects on the negative list were not eligible for incentives, unless the investment took place in priority development regions. Items on the negative list included iron and steel works, tire manufacturing, fertilizer plants, certain chemical plants, the automobile industry, and some light industries and service facilities. Activities that were not incentive industries and that do not appear on the negative list were called normal industries.

The VAT accruing in the importation of investment goods was postponed until the date when an actual reduction of the tax was possible. This incentive was an exemption rather than postponement applicable for investments with IIC. There was no VAT postponement for

investment goods acquired domestically. In the case of projects without IIC the importer had to pay the VAT. In that case the importer could claim the VAT back but only gradually, in equal instalments over three years without any adjustment for foregone interest or even inflationary erosion. During 1987 the VAT rate was 12 percent and annual payments amounted 4 units.

Investment could take place in machinery and equipment that was either produced domestically or imported. Investment in domestic machinery and equipment was receiving a 15 percent credit from the Export Encouragement Fund prior to October 1986. At that time the subsidy rate was raised to 20 percent. On the other hand a 5 percent tax in addition to import duty was levied on imported machinery and equipment.

Following Karakoyunlu (1987) we assume as before that the tax, duty and charge associated with financial transactions amounts to 4.4. percent of the loan exteded. We assume that 70 percent of machinery and equipment is imported and that the average customs tax on imports of investment goods during 1987 was 52 percent (Karakoyunlu (1987)). Under the tax, duty and charge exemption and customs duty exemption the firm with IIC does not pay neither of these taxes.

The sixth investment incentive available during 1987 was in the form of a direct payment from the Resource Utilisation Support Fund (RUSF). The subsidy rate was 20 percent of realised investment in first priority development regions and 15 percent in second priority development regions, without regard to the size of investment. If investment was at least one billion Turkish Liras, the subsidy was 7 percent in normal regions and 4 percent in developed regions.[1]

In order to alleviate the effect of high interest on investment borrowing, investment credits were made available on concessional rates. The government had devised a scheme under which the interest rate on loans of foreign origin such as IFC loans was fixed at about 32 percent when the average rate of inflation during 1986-88 was 51.6 percent. Actual costs of loans provided from Turkish Industrial Development Bank amounted to 38 percent. In addition the firms could benefit from rediscount opportunities of the Central Bank. The interest rate was 40 percent. Taking the average credit cost of low interest credits as 38 percent and interest rate on normal credits with no IIC as 85 percent (Karakoyunlu (1987)) the subsidy is estimated as 47 percent.

With regard to depreciation allowances we note that firms are allowed to depreciate the assets faster than economic depreciation. This is equivalent to providing subsidy to the firm. This case is analysed by assuming the depreciation rate for buildings to equal 5 percent, and for machinery and equipment 25 percent.

The final investment incentive scheme refers to financing fund. Under this scheme corporations can set aside a percentage of taxable income for future investments. The amount set aside at the

[1] For definition of first and second priority development regions, normal regions and developed regions see the World Bank (19987).

discretion of the firm is deducted from its taxable income and deposited in an interest bearing account with the Central Bank. It can be withdrawn any time with authorisation from the Undersecretariat for Treasury and used for investment. When the investment is completed, the amount becomes taxable. This incentive thus postpones the corporate tax payments.

In the base case we assume that no investment incentives are provided to the firm. The firm has to pay all its taxes, and no credits are granted at concessional rates. Depreciation allowances were based on historical costs, adjusted to reflect the rate of inflation minus 10 percent.

Table 5 shows the effect of investment incentives on the rate of return and METR under two financing structures (all equity and half equity-half debt). The table reveals that the customs duty exemption increases the rate of return from 3.9 percent to 7.4 percent under all equity financing, and from 3.4 to 6.9 percent under half equity-half debt financing. Low interest credit increases the rate of return from 3.9 percent to 4.1 percent under all equity financing, and from 3.4 to 4.8 percent under half equity-half debt financing. The RUSF subsidy increases the rate of return from 3.9 percent to 4.7 percent under all equity financing, and from 3.4 to 4.2 under half equity-half debt financing. Postponement of the VAT results in an increase of the rate of return from 3.9 to 4.6 percent under all equity and from 3.4 to 4.1 percent under half equity-half debt financing. Accelerated depreciation increases the rate of return from 3.9 percent to 4.2 percent under all equity, and from 3.4 percent to 3.6 percent under half-equity. Investment allowance of 30 percent increases the rate of return from 3.9 percent to 4.2 percent under all equity financing and from 3.4 to 3.6 percent under half equity-half debt financing. The 100 percent investment allowance increases the rate of return to 4.9 percent under all equity financing, and to 4.2 percent under half equity-half debt financing. The tax, duty and charge exemption and cross subsidisation scheme have minor effects. The combined effect of the investment incentives under 30 percent investment allowance increases the rate of return from 3.9 to 10.8 percent under all equity financing, and from 3.4 percent to 14.3 percent under half equity-half debt financing. These results when expressed in terms of METR indicate that under equity financing METR increases by 0 percent under cross subsidisation scheme and the tax, duty and charge exemption, 7.69 percent under 30 percent investment allowance and accelerated depreciation, 17.95 percent under postponement of the VAT, 20.51 percent under RUSF subsidy, 5.13 percent under low interest credit, and 89.74 percent under customs duty exemption. Similarly under half equity-half debt financing METR increases by 0 percent under cross subsidisation scheme, 2.94 percent under tax, duty and charge exemption, 5.88 percent under 30 percent investment allowance and accelerated depreciation, 20.59 percent under postponement of the VAT, 23.53 percent under RUSF subsidy, 41.18 percent under low interest credit, and 102.94 percent under customs duty exemption

Table 6 shows sectoral classification of investment incentives issued by the Undersecretariat of Treasury during 1987. The table reveals that the sectors that have been granted most of the investment incentives are tourism sector with a share of 33.8 percent, transportation sector with share of 14.4 percent, textiles and clothing sector with a share of 8.8 percent and vehicles with a share of 6.2 percent. We assume that 50 percent of all investments are all equity financed and 50 percent half equity-half debt financed. The average subsidy rate is then calculated from Table 5 as 8.9 percent. Table 3 shows the gross fixed investment expenditures

of the private sector during 1987. From the table it follows that during 1987 services, textiles and clothing, agriculture, soil products and food sectors had the highest shares in total private sector fixed investment expenditures. From column 3 of Table 7 showing the shares of IIC in gross fixed investment expenditures of the private sector it follows that IIC has fallen short of the actual investment expenditures in some of the sectors. In those cases we have multiplied the subsidy rate of 8.9 percent with the IIC value. Whenever the share was greater than unity we multiplied the subsidy rate of 8.9 percent with the fixed investment expenditure value of the private sector. The average subsidy rate for the sector is then obtained by dividing the subsidy thus obtained by the value of investment expenditures in that sector. Weighting the sectoral subsidy rates by the shares of actual sectoral investment expenditures in total investment expenditures we obtained an average subsidy rate of 7.77 percent for the manufacturing sector.

4. Effect of Investment Scheme on Market Structure

The investment incentives used during 1980's and 1990's has been one of the main tools of industrial policy in Turkey. The purpose was to overcome the barriers to entry into industry imposed by capital market imperfections and thus increase competition in the country. But investment incentives in Turkey have also been a barrier to competition and structural change. Through the incentive system, established firms obtained unit cost advantages which helped them to consolidate their market position. Entrants, competing scarce fiscal resources, have been at a disadvantage relative to well informed incumbents. Thus credit incentives, which were supposed to promote entry, have often turned into instruments that reinforced the position of large incumbents. Furthermore the government with its large share of the banking system has directly controlled the allocation of credit, and credit from public banks have often been extended not on the basis of commercial but of other considerations. One should also note that public sector procurements have also been barriers to competition due to collusion among preferred suppliers.

It is emphasized that established firms benefit from the investment incentive schemes such as investment allowances but not the new entrants since the latter in order to benefit from investment allowances have to show in their income statements positive profits first. Furthermore the Undersecretariat for Treasury asks the firms applying for IIC to provide all financial information about the project. But firms in the informal sector prefer not to make use of any investment incentives rather than provide the required information to the Undersecretariat. Finally, it should be emphasised that SME's in particular finance large part of their investment expenditures from own sources. Use of bank credit is rather limited for investment purposes.

We now turn to the analysis of the effects of investment incentive scheme on conditions of competition in the economy. A measure that provides such information prevailing in a given country, that is relatively easy to compute and that is available on a times series basis is the price-cost margins defined as

$$\mathrm{Pr}ice - Cost\ M\,\mathrm{arg}in = \frac{(Value\ Added - Labor\ Cost)}{Labor\ Cost}$$

Table 8 together with Figures 1-13 show the developments in price-cost margins over the period 1980-1997. The data reveal that price cost margins have fluctuated considerably during the period and that the margins are relatively high. The average price-cost margin is 399.5 percent food sector, 291.2 percent in textiles and clothing, 225.2 percent leather sector, and 283.5 percent in wood products sector. Data have been obtained from "Annual Manufacturing Industry Statistics" of the State Institute of Statistics for the period 1980-1997. The surveys cover all firms in the public sector, and private firms employing more than or equal to ten employees. Within a comparative framework the figures are relatively high and they indicate the lack of competition in the economy. Regressing the price-cost margin figures on investment subsidy rates we obtain the equation

$$\text{Price-Cost Margin} = 3.849 + 0.115 * \text{SubsidyRate}$$
$$(3.194)\ \ (0.663)$$

$$R^2 = 0.02;\ DW = 1.907$$

Although the sign is positive the coefficient is statistically not different from zero.

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Table 1: Effects of Investment Incentives on the Rate of Return and METR during 1999

	Rate of Return		METR	
	Debt/Equity=0	Debt/Equity=1	Debt/Equity=0	Debt/Equity=1
Base Case	10.3	10.1	-	-
VAT Support	12.5	12.6	21.36	24.75
Investment Allowance				
100 percent	12.2	12.1	18.45	19.80
200 percent	12.6	12.1	22.33	19.80
Tax, Duty and Charge Exemption	10.3	10.4	0.00	2.97
Customs Duty Exemption	10.4	10.2	0.97	0.99
Total Effect of all Incentives	15.1	15.8	46.60	56.44

Source: Own calculations

Table 2: Sectoral Classification of Investment Incentive Certificates during 1999

	Number of Certificates	Fixed Investment (Billion TL)	Fixed Investment (Million $)	Employment (Person)
Agriculture				
Vegetables	21	5,290	12.67	536
Animal Husbandry	81	87,392	209.28	3,950
Aquacultural Products	7	1,907	4.57	208
Forestry				
Mining	93	55,121	132.00	2,758
Manufacturing				
Food & Beverages	267	176,703	423.16	12,289
Textiles & Clothing	242	211,450	506.37	22,983
Forestry Products	66	65,511	156.88	5,641
Paper	24	98,291	235.38	1,319
Leather & Leather Products	10	4,054	9.71	574
Rubber	108	61,328	146.86	2,766
Chemicals	73	179,421	429.67	3,312
Glassware	23	21,734	52.05	2,086
Iron & Steel	39	65,034	155.74	1,209
Non-ferrous Metals	26	23,513	56.31	895
Vehicles	129	144,523	346.10	5,500
Metallic Goods	183	182,772	437.69	9,123
Measuring Devices	21	29,279	70.12	1,089
Machinery	77	281,838	674.93	7,623
Electrical Machinery	34	36,927	88.43	2,170
Electronics	32	46,694	111.82	1,535
Cement	102	230,888	552.92	4,339
Clay & Cement Products	68	46,212	110.67	2,735
Construction	12	10,181	24.38	360
Ceramics	14	47,029	112.62	1,137
Others	51	62,393	149.42	2,139
Energy				
Energy	48	202,100	483.98	534
Services				
Transportation	301	1,065,941	2,552.66	22,931
Tourism	199	298,772	715.48	19,378
Trade	116	165,878	397.24	11,525
Education	48	75,950	181.88	5,586
Health	155	190,854	457.05	10,317
Others	297	489,002	1,171.04	24,133
TOTAL	2,967	4,663,982	11,169.05	192,680

Source: Treasury Monthly Statistics, January 2000

Table 3: Gross Fixed Investment of the Private Sector during 1987 and 1999

	1987 Current prices (billion TL)	1987 Current prices (Million $)	1999 Current prices (billion TL)	1999 Current price (Million $)
Agriculture	619.0	723.4	493,727.0	1,182.
Mining	142.5	166.6	192,978.0	462.1
Manufacturing	2,778.3	3,246.8	2,686,859.0	6,434.
Food	238.8	279.1	197,323.2	472.5
Beverages and Tobacco	27.3	31.9	65,682.5	157.3
Textiles and Clothing	681.0	795.8	754,543.7	1,806.
Leather and Leather Products	28.3	33.1	18,625.6	44.6
Forestry Products	28.2	33.0	33,629.5	80.5
Paper and Printing	139.9	163.5	93,219.5	223.2
Chemicals, Petro Chemicals and Fertilizers	231.7	270.8	218,651.9	523.6
Petroleum Products	16.6	19.4	33,444.7	80.1
Rubber and Plastics	87.0	101.7	168,975.5	404.7
Soil Products	473.0	552.8	304,983.0	730.4
Basic Metals	159.6	186.5	164,262.3	393.4
Metal Goods	140.5	164.2	92,311.2	221.1
Machinery, other than Electric	121.8	142.3	97,084.7	232.5
Electrical Machinery	149.8	175.1	111,666.8	267.4
Transport Equipment	236.9	276.9	296,530.8	710.1
Other Manufacturing	17.8	20.8	35,924.0	86.0
Energy	71.3	83.3	324,027.0	776.0
Services	7,399.8	8,647.8	9,635,589.0	23,074.
TOTAL	11,010.9	12,867.9	13,333,180.0	31,929.

Source: State Planning Organization

Table 4: Investment Incentive Allowances during 1987

	Type of Industry		
Type of Region	Negative List	Normal Industries	Incentive Industries
Developed	0	30	100
Normal	0	40	100
Second Priority Development	60	60	100
First Priority Development	100	100	100

Source: World Bank (1987) and Duran (1998)

Table 5: Effects of Investment Incentives on the Rate of Return and METR during 1987

	Rate of Return		METR	
	Debt/Equity=0	Debt/Equity=1	Debt/Equity=0	Debt/Equity=1
Base Case	3.9	3.4	-	-
Customs Duty Exemption	7.4	6.9	89.74	102.94
Low Interest Credit	4.1	4.8	5.13	41.18
Resource Utilization Support Fund	4.7	4.2	20.51	23.53
Postponement of the VAT	4.6	4.1	17.95	20.59
Accelerated Depreciation	4.2	3.6	7.69	5.88
Investment Allowance				
30 percent	4.2	3.6	7.69	5.88
100 percent	4.9	4.2	25.64	23.53
Tax, Duty and Charge Exemption	3.9	3.5	0.00	2.94
Cross Subsidization Scheme	3.9	3.4	0.00	0.00
Total Effect of all Incentives	11.2	15.1	187.18	344.12

Source: Own calculations

Table 6: Sectoral Classification of Investment Incentive Certificates during 1987

	Number of Certificates 1987	Fixed Investment 1987 (Million TL)	Fixed Investment 1987 (Million $)	Employment 1987 (Person)
Agriculture				
Vegetables	18	14,543	17.00	373
Animal Husbandry	167	191,016	223.23	3,750
Aquacultural Products	14	7,418	8.67	352
Forestry	3	3,699	4.32	6
Mining	160	270,763	316.43	10,440
Manufacturing				
Food & Beverages	218	226,867	265.13	8,763
Textiles & Clothing	370	1,051,560	1,228.90	22,214
Forestry Products	62	39,767	46.47	2,231
Paper	14	31,534	36.85	633
Leather & Leather Products	60	102,196	119.43	3,522
Rubber	41	98,297	114.87	1,622
Chemicals	55	278,514	325.48	2,842
Glassware	19	55,070	64.36	1,257
Iron & Steel	26	47,303	55.28	1,475
Non-ferrous Metals	16	27,408	32.03	829
Vehicles	65	733,631	857.36	2,538
Metallic Goods	68	131,130	153.24	5,164
Measuring Devices	18	25,172	29.42	1,138
Machinery	35	28,028	32.75	1,801
Electrical Machinery	20	13,177	15.40	648
Electronics	19	203,463	237.78	1,140
Cement	130	600,064	701.26	5,811
Clay & Cement Products	161	159,592	186.51	7,754
Construction	97	95,552	111.67	13,010
Ceramics	6	52,217	61.02	416
Others	53	64,557	75.44	1,583
Energy				
Energy	15	598,186	699.07	4,913
Services				
Transportation	285	1,705,998	1,993.71	20,534
Tourism	288	4,016,737	4,694.15	22,522
Trade	90	637,051	744.49	5,546
Education	25	31,176	36.43	1,652
Health	46	86,382	100.95	2,271
Others	164	260,056	303.91	3,249
TOTAL	2,828	11,888,124	13,893.03	161,999

Source: Undersecretariat of Treasury (1999)

Table 7: Gross Fixed Investment and Investment Incentive Certificates by Sectors

	Private Sector Gross Fixed Investment (1987, billion T	Investment Incentive Certificates (1987, billion T	Share of IIC in Privat Gross Fixed Investment (%)	Maximum Value of Subsidy (1987, billion T	Subsidy Rate 1987	Private Sector Gross Fixed Investment (1999, billion T	Investment Incentive Certificates (1999, billion T	Share of IIC in Gross Fixed Investment (%)	Maximum Value of Subsidy (1999, billion T	Subsidy Rate 1999
Agriculture	619.0	216.7	35.0	19.3	3.12	493,727.0	94,589.0	19.2	4,965.9	1.0
Mining	142.5	270.8	189.9	12.7	8.90	192,978.0	55,121.0	28.6	2,893.9	1.5
Manufacturing	2,778.3	4,065.1	146.3	247.3	8.90	2,686,859.0	2,025,775.0	75.4	106,353.2	3.9
Manufacture of food, beverages and tobacco	266.1	226.9	85.2	20.2	7.59	263,005.7	176,703.0	67.2	9,276.9	3.5
Textiles and Clothing	681.0	1,051.6	154.4	60.6	8.90	754,543.7	211,450.0	28.0	11,101.1	1.4
Leather and Leather Products	28.3	102.2	360.7	2.5	8.90	18,625.6	4,054.0	21.8	212.8	1.1
Manufacture of wood and wood products including furn	28.2	39.8	141.0	2.5	8.90	33,629.5	65,511.0	194.8	1,765.6	5.2
Manufacture of paper, paper products, printing and pub	139.9	31.5	22.5	2.8	2.01	93,219.5	98,291.0	105.4	4,894.0	5.2
Chemicals, Petro Chemicals and Petroleum Products	248.3	278.5	112.2	22.1	8.90	252,096.6	179,421.0	71.2	9,419.6	3.7
Rubber and Plastics	87.0	98.3	112.9	7.7	8.90	168,975.5	61,328.0	36.3	3,219.7	1.9
Manufacture of non-metallic mineral products except of	473.0	962.5	203.5	42.1	8.90	304,983.0	356,044.0	116.7	16,011.6	5.2
Basic metal industries	159.6	74.7	46.8	6.6	4.17	164,262.3	88,547.0	53.9	4,648.7	2.8
Fabricated Metal Products	140.5	131.1	93.3	11.7	8.31	92,311.2	182,772.0	198.0	4,846.3	5.2
Machinery except Electrical	121.8	28.0	23.0	2.5	2.05	97,084.7	281,838.0	290.3	5,096.9	5.2
Electrical Machinery	149.8	216.6	144.6	13.3	8.90	111,666.8	83,621.0	74.9	4,390.1	3.9
Transport Equipment	236.9	733.6	309.6	21.1	8.90	296,530.8	144,523.0	48.7	7,587.5	2.5
Other Manufacturing	17.8	89.7	504.2	1.6	8.90	35,924.0	91,672.0	255.2	1,886.0	5.2
Energy	71.3	598.2	839.3	6.3	8.90	324,027.0	202,100.0	62.4	10,610.3	3.2
Services	7,399.8	6,737.4	91.0	599.6	8.10	9,635,589.0	2,286,397.0	23.7	120,035.8	1.2
TOTAL	11,010.9	11,888.1	108.0	1,102.6	7.77	13,333,180.0	4,663,982.0	35.0	329,216.0	1.6

Table 8: Price-Cost Margins over the period 1980-1997

ISIC		1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
31	Manufacture of food, beverages and tobacco	1.8054	2.3657	3.5739	2.9420	3.5477	4.5268	5.1764	5.1609	6.4984	4.5245	3.5712
321+322	Textiles and Clothing	1.9001	1.5399	1.9792	2.1126	2.4070	2.6003	2.8729	3.5836	3.3083	2.8383	2.7561
323+324	Leather and Leather Products	1.1386	1.2517	1.4427	1.4475	2.1793	2.1609	2.7543	2.6665	2.0493	2.7635	1.6357
33	Manufacture of wood and wood products including furniture	1.7162	1.4973	1.6196	1.8469	2.0236	3.1778	3.1866	4.1416	4.0544	2.8735	2.4309
34	Manufacture of paper, paper products, printing and publishing	0.9396	1.4404	1.6755	1.9582	2.1150	2.9675	2.9830	3.3014	4.1434	2.7599	2.6997
351+352+353+354	Chemicals, Petro Chemicals and Petroleum Products	6.7852	10.6215	10.4165	2.8734	3.3375	10.2886	19.2556	11.0528	14.6384	11.2764	9.4146
355+356	Rubber and Plastics	2.8065	2.4094	2.4621	2.5624	3.1130	3.5839	3.5556	4.3579	4.6900	3.3795	2.8284
36	Manufacture of non-metallic mineral products except of products of	2.4127	2.9533	2.3826	2.5394	2.3158	2.6101	4.5071	5.3777	4.9304	3.6591	3.1358
37	Basic metal industries	1.3034	1.1145	1.0749	1.6412	2.2376	2.5519	2.9508	3.9112	5.1301	3.6076	1.6825
381	Fabricated Metal Products	2.3230	1.8174	2.0247	1.9021	2.1824	2.5666	3.1884	3.8212	3.8512	3.4069	2.9854
382	Machinery except Electrical	1.3701	1.4160	1.7079	1.6227	1.8528	2.0179	2.7483	2.6288	3.5017	2.7064	3.0611
383	Electrical Machinery	2.0910	2.4127	2.4706	2.5440	3.1910	3.3696	4.7235	5.0184	4.3034	3.4450	3.2410
384	Transport Equipment	0.9734	1.5849	1.8868	2.1907	2.2512	2.1825	2.6576	2.7331	3.5738	2.6855	2.3112
385+39	Other Manufacturing	2.2911	1.7957	2.4542	2.5671	2.4058	3.7728	3.0468	2.8239	2.3928	2.9608	2.5272

Source: Own calculations

Figure 1: Price-Cost Margin in Food Industry

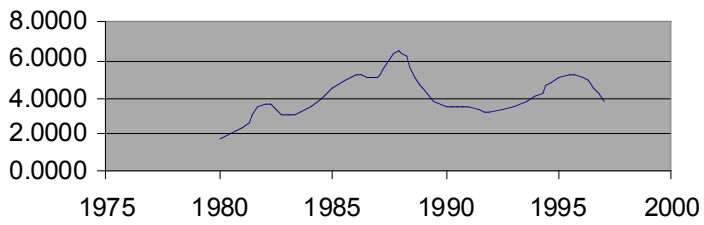


Figure 2: Price-Cost Margin in Clothing Industry

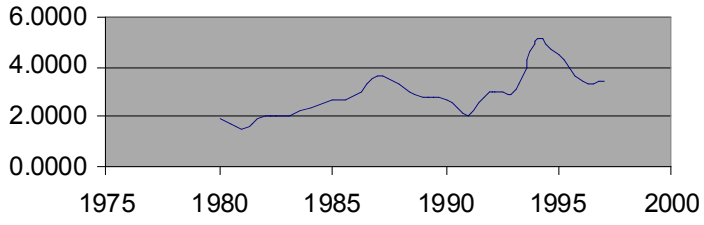


Figure 3: Price-Cost Margin in Leather Industry

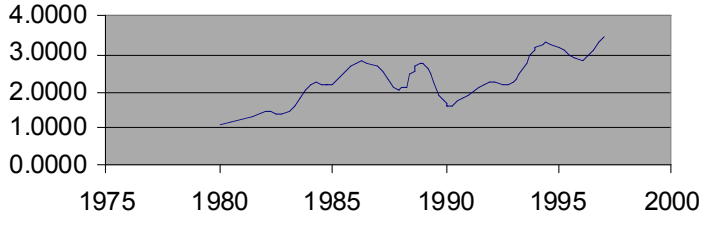


Figure 4: Price-Cost Margin in Wood Products Industry

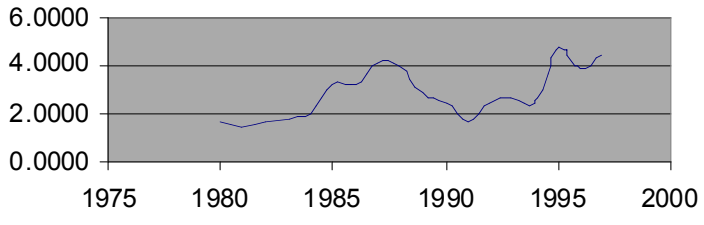


Figure 5: Price-Cost Margin in Paper Industry

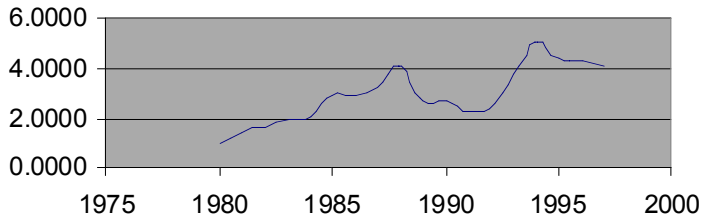


Figure 6: Price-Cost Margin in Chemicals Industry

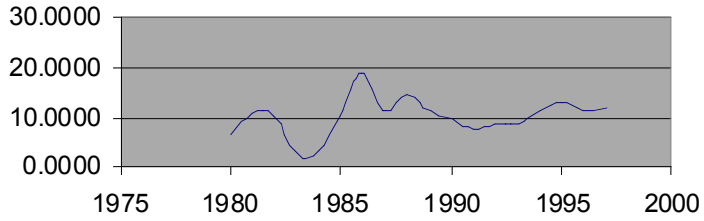


Figure 7: Price-Cost Margin in Rubber and Plastics Industry

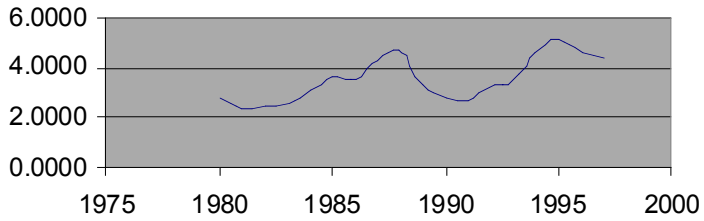


Figure 8: Price-Cost Margin in Non-Metallic Mineral Products Industry

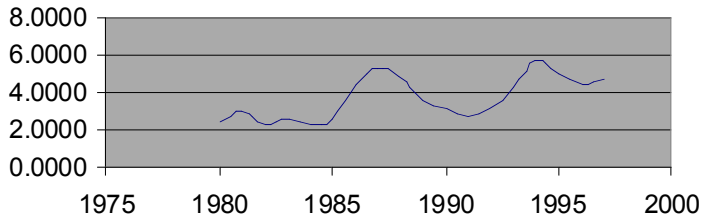


Figure 9: Price-Cost Margin in Basic Metals Industry

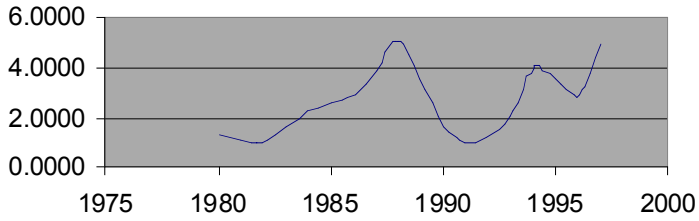


Figure 10: Price-Cost Margin in Fabricated Metal Products Industry

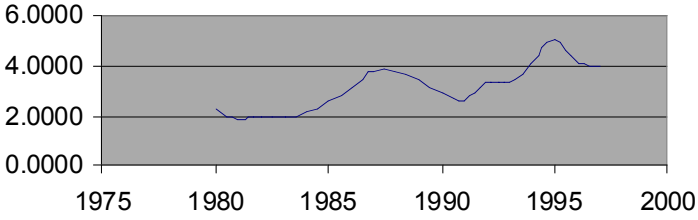
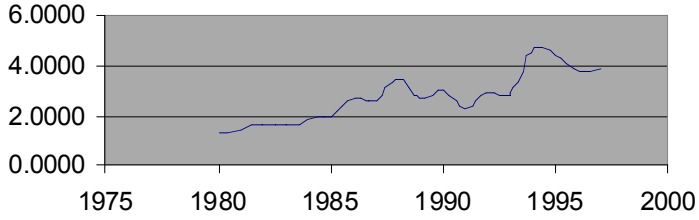


Figure 11: Price-Cost Margin in Machinery Industry



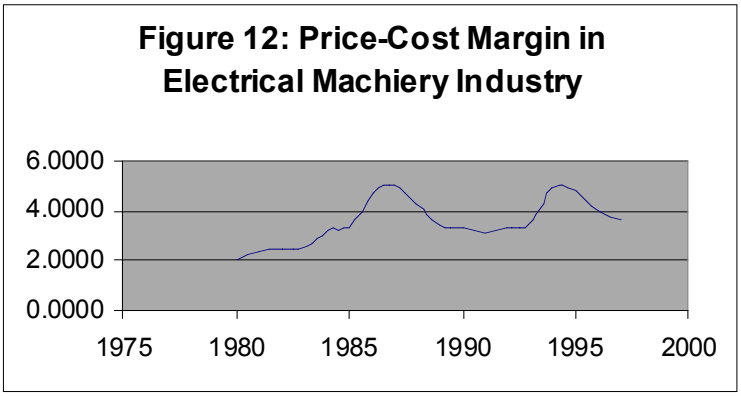


Figure 12: Price-Cost Margin in Electrical Machiery Industry
6.0000
4.0000
2.0000
0.0000
1975
1980
1985
1990
1995
2000

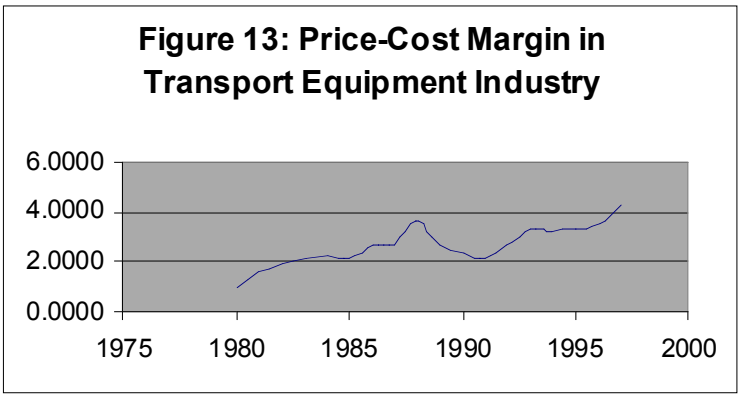


Figure 13: Price-Cost Margin in Transport Equipment Industry
6.0000
4.0000
2.0000
0.0000
1975
1980
1985
1990
1995
2000

LABOR MARKET FLEXIBILITY IN TURKEY

Subidey Togan

One of the main determinants of macroeconomic performance of any country is the structure of the labor market. In particular the degree of "flexibility" of the labor market is considered to be one of the key determinants of the evolution of employment and unemployment in the country. After considering the main characteristics of the Turkish labor market in section 1, section 2 studies labor market flexibility and section 3 the characteristics of formal and informal sectors. Productivity, real wages and unit labor costs in manufacturing are analysed in section 4. The paper concludes with a short assessment of labor market flexibility in section 5.

1. LABOR MARKET

Since demographic indicators have great importance for labor supply a brief review of these indicators is presented. The population of Turkey in 1998 is 64 million. The annual population growth rate, which was 2.52 percent during the period 1965-1970, has declined to 1.62 percent during 1995-2000. About 63 percent of the population is in the 15-64 year age group. Turkey has a very young population with a median age of 22.2 years. The dependency ratio defined as the number of people in the age group 0-14 and 65+ to every 100 persons in the age group 15-64 is 64.2 percent in 1990. Sharp decreases in crude birth and death rates and increase in the life expectancy at birth are observed. By 1995-2000 the birth rate, death rate and life expectancy at birth are 2.14 percent, 0.65 percent and 68.55 years respectively.

Although population growth is expected to decline over time annual additions to the population in the near future will still be very significant, at an average of one million persons per year. What this implies is that over time Turkey has to create continuously new jobs, implement basic infrastructural investments, and provide education and health services to the growing population.

Over the past decade Turkey has had a very high urbanization rate. The urbanization rate defined as the proportion of the population living in places with 10,000 or more inhabitants has increased from 32.4 percent in 1970 to 70.6 percent in 2000. Internal migration dominating population dynamics of the country has been caused by many factors including the regional income differences. It is expected that with the completion of the South-Eastern Anatolian Project a major factor causing migration will be eliminated. In previous decades labor supply trends were influenced by migration abroad. It has been emphasized that income differences between Turkey and EU countries were the major factors causing external migration. The flow of Turkish workers to Europe in the 1960's and 1970's came to an abrupt halt after the

recession in Europe in the mid 1970's. In 1999 the number of workers and their dependent abroad amounted to xxx million, xxx of which were workers.

One of the positive trends that has accompanied Turkey's demographic transition is the increase in the working age population. Turkey's population of ages 12 and over has increased from 37.2 million in 1988 to 48.8 million in 1999. Simultaneously the labor force participation rate declined from 54.6 in 1988 to 48.7 percent in 1999. The decline in participation rate is the result of growing educational involvement and change in the composition of labor force away from agriculture towards non-agricultural activities. By 1999 the labor force stands as shown in Table 1 at 23.8 million. The amount of employment generated by the economy has increased from 18.5 million in 1988 to 22 million people in 1999. By 1999 (1988) 45.8 (47.4) percent of the labor force is (was) employed in agriculture, 14.1 (14.3) percent in manufacturing, 39.1 (36.9) percent in services and the unemployment rate was (was) about 7.8 (9.5) percent.

In Turkey agriculture has economy wide importance. During 1998 it accounted for about 13.5 percent of GDP. The share has been falling over time, but compared to other countries the share is relatively high. Table 2 reveals that value added per agricultural worker in Turkish agriculture amounts on average to only 23 percent of the value added per worker in manufacturing sector. Table 2 further reveals that employment (value added) in agriculture has increased from 8.96 million (12.64 billion TL) in 1980 to 10.1 million (15.4 billion TL) in 1999, that employment (value added) in agriculture on average has increased at the annual rate of 0.48 (1.27) percent, and that labor productivity has increased by 0.8 percent. On the other hand, industry accounted during 1998 for 28 percent and services for 58.5 percent of GDP. As employment in industry (services) increased from 2.4 (5.2) million in 1980 to 3.3 (8.6) million in 1999, industrial value added (value added in services) increased from 11.2 (26.5) billion in 1980 to 31.8 (63) billion in 1999. As a result labor productivity has increased at the annual rate of 3.6 (2.03) percent.

2. Labor Market Flexibility

Flexibility in the labor market refers to the ease with which employment and wages adjust, usually downward to disequilibria in the labor market. Economists distinguish between numerical and financial flexibility, where numerical flexibility refers to the adjustment in employment and hours of work and financial flexibility to the pay adjustment in response to changes in product markets and profitability.

For purposes of exposition consider Figure 1, where the vertical axis measures the wage rate in the economy and horizontal axis the quantity of labor. Suppose that for every TL of wages the firm must pay in addition a fraction f in taxes and fringe benefits. Then the cost to the firm of an additional unit of labor is (1+f)w. Let MPL be the downward sloping marginal product of labor schedule telling how much extra output one can get for a marginal one unit increase in labor input. The optimality

condition for profit maximizing firm becomes p MPL = (1+f) w where p stands for the price of output. Writing the marginal condition as [MPL/(1+f)] = (w/p) we note that an increase in the tax rate f leads to a downward (leftward) shift of the labor demand schedule. In the case of supply assume that people are interested in their after tax real income. If LS graphs the quantity of labor supplied at an after tax real wage of (1-t) (w/p) for a tax rate t, then the labor supply curve is related to the pretax wage by (w/p) = LS/(1-t) indicating that an increase in the tax rate t induces an upward shift in the labor supply schedule.

The above considerations reveal that the tax parameters f and t are of importance for the analysis of the labor market. Consider now the determination of the tax parameters f and t and hence of wages in Turkey. Here we note that the basic wage in Turkey includes payments for period worked as well as payments for period not worked such as weekends, public holidays and paid leaves. In addition to basic wage there are other payments similar to wages such as overtime payments, payments for night works, shift indemnity, work hardness indemnity etc. Even though these payments are determined by Labor Acts, most of the prevailing amounts are negotiated and determined in the Collective Agreements. The sum total of all these payments make up the wages and salaries. Earnings include wages and salaries, bonuses, premiums and various social benefits. Certain collective agreements concluded in 1996 specified e.g. that 112 days of daily wages have to be paid to the employees as bonuses and premiums. Increasing the number of bonuses has become a widespread practice in Turkish collective bargains during the last few decades. In Turkey social benefit payments consists of payments such as children allowances, fuel, education, holiday pay and other social allowances. In private sector, some of these allowances are paid since they are compulsory. However, in the public sector, there is total social benefit payments agreed by collective bargaining. In these agreements payments for meal, fuel, holiday and additional pay are always determined as social benefits. By law, family and children allowances have been determined using the seniority chart of the employees. By collective agreements, these allowances, particularly meal, transportation, clothing, heating, marriage, birth, death allowances, subsidy for employee under military service, rent and nursery allowances could be determined as lump-sum amounts.

Labor cost is defined as the sum of earnings, social security contributions, severance payments, notification indemnity, employer's contribution for housing and compulsory savings funds. There are additional costs such as expenses related with sports center, canteen, camping facility, apprentice and vocational training funds. Some of these payments are also obligatory and some of them are paid under the consent of the organizations. According to the Turkish Confederation of Employer Association (TISK) the composition of labor cost during 1998 is as shown in Table 3. Thus the share of basic wage in total labor cost is 39.5 and the share of fringe costs 60.5 percent.

The above considerations reveal that factors such as the characteristics of social security systems, social safety nets, system of taxation and labor market regulations are important factors determining conditions in the labour market, and hence labour market flexibility.

Social Security Systems*:* The social insurance system in Turkey is under the responsibility of three independent agencies. These agencies are the "Retirement Fund" (RF) whose members are the public servants, "Social Insurance Institution" (SII) responsible for workers in private and public sectors, and the "Self Employment Institution" (SEI) which meets the social security needs of self employed individuals. Together, the three funds insured 9.6 million people in 1998. Once the current beneficiaries of pensions are taken into account as well as their dependents, 56.2 million people (88.3 percent of total population) have coverage. In addition to pensions, all three funds provide health, disability, and death benefits. Each fund functions on a pay-as-you-earn basis.

In the following we concentrate on the Social Insurance Institution (SII), as similar considerations apply for the Retirement Fund (RF) and Self Employment Institution (SEI). The SII had as of 1998 5.6 million insured contributors in formal employment with additional 0.9 million voluntary members and 0.2 million contributors from agriculture. There were 2.9 million pensioners and 25.2 million dependents. The dependency ratio defined as the ratio of the sum of pensioners and dependents to contributors amounted to 4.19 indicating that every contributor had to support 4.19 dependents. Contributions were paid at 33.5 percent of wages (20 percent for pensions, 12 percent for health care, and 1.5 percent for other benefits), 14 percentage points paid directly by the employee with the balance paid by the employer. The wage on which contributions were based was capped at 1.8 times the minimum pensionable wage in order to cap the consequent pension benefits. Since average private sector wages were five times the minimum wage, the effective contribution rate for those that earned the average wage was 12 percent of actual wages instead of the 33.5 percent.

One of the problematic features of the Turkish system was the absence of a minimum retirement age. Until 1992 the minimum retirement age in Turkey was 60 years for men and 55 for women but the minimum retirement age limit was removed in 1992. Henceforth members, who have been enrolled in the pension system for at least 25/20 years for men/women, were eligible to receive full pension benefits upon the completion of a relatively short minimum contribution period of only 5000/3600 days by men/women. As a result of this legislation, women at the age of 38 and men at the age of 43 had the chance to retire. These pensioners will draw benefits for a long time. The life expectancy of women at the age of 38 is 38.5 and that of men at the age of 43 is 30.8 years. Thus the system will have to support women retired at the age of 38 for 38.5 years, and men retired at the age of 43 for 30.8 years.

In SII, the reference period for calculating benefits was the last five years of contributions for those paying on the lower pension scale and the last ten years for

contributors on the upper scale. Pensioners retiring after 14 years, which was the statutory contribution period for full pension, received a replacement ratio of 60 percent of the of their average salary during the reference period, and each additional contribution year raised benefits by 1.5 percent of salary. The maximum replacement ratio amounted to 85 percent. The low rate of increase in the replacement ratio after 14 years of contributions relative to the cost of continuing to pay into the system provided a strong incentive for participants to declare retirement as soon as they satisfied the minimum contribution period. Furthermore the system had the inherent incentive for employers and employees to under-declare incomes of the workers until the final 5-10 contribution years before the worker became eligible for a pension.

There were also major compliance problems in SII due to administrative deficiencies. First, SII faced problems of enrolling contributors. Second, even among those enrolled, there were problems in collecting contributions due. The compliance rate (cash receipt/accrued contribution revenues) was estimated at 84.5 percent of the declared pensionable wage bill.

The combination of early retirement, generous benefit formulas, and poor collection and enforcement practices have combined to create serious financial problems in each of the social security funds SII, RF and SEI. The social security deficit amounting to 2.7 percent of GNP in 1998 increased to 3.3 percent. This deterioration was expressed in a decline in revenue and rapid rise in expenditures. It was estimated that in the absence of serious reform, the deterioration in the social security finances would continue. The deficit was projected to rise to 6 percent of GNP by the year 2005.

On September 8, 1999 the Turkish government has enacted a social security reform bill which aims to eliminate the growing financial imbalances. The reform bill envisions the following changes. Minimum retirement age was introduced and for new workers the retirement age was set as 60/58 for men/women. For current workers the minimum retirement age was raised and it was set at 56/52 for men/women who still have more than 10 years for retirement. Members who have been enrolled in the pension system for at least 25 years were eligible to receive full pension benefits upon the completion of the contribution period of 7000 days. The replacement rate was set at 45 percent of average contributions paid over the reference period if workers contribute for 20 years, 57.5 percent for contributions for 25 years, and 70 percent for contributions for 30 years. The contribution ceiling was raised to five times the minimum wage, and annual indexation of pensions was limited to changes in the CPI. The reference period was increased to 10 years for all pension funds for workers that are ten years or less for qualifying for retirement under the former arrangement, and to whole worklife for those more than ten years from qualifying for retirement. Finally, the government has taken measures to improve administration, increase enforcement measures and expand membership.

(ii) Health Related Schemes*:* There are substantial differences in health status across the country and between groups of people within it and those regions with worst health status have the least access to care. In Turkey about 78.6 percent of the population in 1998 was covered by public health insurance schemes. For those people according to Undersecretariat of the Treasury (1996) 23 percent of medical costs were paid out of pocket, while 44 percent have been met by the government through subsidies on service charges. Uninsured people rely on their own resources and the availability of public services at subsidized prices. For the uninsured people 44 percent of the health expenditures were met by the government through less than full cost fees. Recently the financial situation of the public health system run by the three agencies "Retirement Fund" (RF), "Social Insurance Institution" (SII) and "Self Employment Institution" (SEI), has deteriorated considerably.

The old age and disability assistance scheme provides basic support for very poor people. The disability assistance is provided to an insured persons who (i) is found to have lost at two thirds of his working capacity, (ii) is considered, according to a report by the medical board of the health establishment of the institution, as incapacitated for work, (iii) has lost at least 60 percent of his earning capacity in the profession or occupation as a result of an occupational accident or professional disease. The persons who have been insured for a total period of 1800 days or at least 5 years and have paid contributions are entitled to an invalidity pension. The invalidity pension is calculated in accordance with the regulations about the proportion of the invalidities resulting from the loss of the earning capacity in the profession. The work injuries are considered as occupational accidents and professional diseases and assistance is provided to the insured person who had an accident in the workplace. The temporary incapacity to work indemnity is determined according to the medical treatment prescribed. The indemnity is paid until the insured person is fully recovered. On the other hand in order to receive maternity benefits, maternity insurance contributions must have been paid for the insured woman during the course of the year preceding the confinement for at least 90 days and in cases of uninsured wives of insured men for at least 120 days. The maternity benefits are also provided in cases of legal abortion and inviolable births. By law, the insured woman is not allowed to work in the maternity period of 6 weeks before and after the birth. Thus, she is entitled to receive maternity indemnity of 2/3 of her daily earnings during the period of 12 weeks. Sick pay is provided to the insured excluding those within the coverage of the occupational accidents and professional diseases. An insured person is entitled to the indemnity as long as six months prior to sickness contingencies have been paid for at least 120 days. Indemnity amount depends on the type of medical treatment required. The period of indemnity payments is normally 6 months to 18 months, at most.

(iii) Social Safety Nets*:* In Turkey there was no unemployment insurance until very recently. Since sharp drops in income from work could have profound impact on the living standards of workers and their families, Turkey in order to deal with the risk of unemployment has introduced job security legislation discouraging arbitrary dismissals by establishing a liability for employers who fire workers without just

cause. Article 13 of Turkish Labor Law No. 1475 requires employers to give advance notice to workers being dismissed. The length of notice depends on the length of the period on the job. The law requires employers to pay 0.5-2 months' wages as a minimum severance. In addition Article 14 of the Labor Law requires that workers dismissed at the employer's initiative (except disciplinary dismissals) and those who retire receive lump-sum severance payments. Currently the severance payment is a lump sum corresponding to one month's salary for each completed year of service, paid at the wage level prevailing at the time of leaving, with ceilings of 30 years.

On September 8, 1999 the Turkish government has enacted the new social security reform bill which introduced the unemployment insurance. It will be compulsory for all members of the social security institutions RF, SII and SEI starting on June 1, 2000. With the introduction of the unemployment insurance the payments to forced saving fund amounting to 2 percent of wages by the employee and 3 percent of wages by the employer are to be eliminated. Contributions to the unemployment insurance are to be paid 2 percent of wages by the employee, 3 percent by the employer and 2 percent by the government. Members who have been unemployed are eligible to receive unemployment benefits provided they have paid their contributions for 600 days over the last three years and for at least 120 days uninterruptedly prior to being unemployed. The unemployment benefit, amounting to 50 percent of the last four months average wage, will be paid over 180 days as long as the member has paid contributions for 600 days, for 240 days with 900 days of contributions and 300 days with 1080 days of contribution. The unemployment benefit

In market economies employees move between employers, between types of work and between places. An institution that will definitely increase the flexibility in labor markets is well functioning labor placement offices. In Turkey labor placement is done by the Labor Placement Office, which finds jobs annually for around 250,000 people in the domestic market and for another 60,000 people in foreign markets. Besides placement, retraining of the unemployed and social assistance targeting the low income households have been used as alternative ways of providing income support for the unemployed and increasing the probability of their reemployment. In Turkey the retraining activity is done by adult education programs. The Ministry of Education has about 950 adult training centers which are attended by over half a million people. The duration of these programs is a minimum of eight months. There are also public agencies such as the National Productivity Center and universities which organize short period courses and seminars in selected areas. Finally there are agencies providing social assistance to targeted groups. The Child Protection Agency under the Ministry of Health takes care of orphans. During the late 1980's the Social Assistance and Solidarity Scheme was established. Under this scheme benefits in kind and lump-sum payments (rather than regular income support) are provided to certain very needy people on a discretionary basis. Benefits are low and recipients are expected to look for work.

(iv) Regulations in the Labor Market *:* Labor regulations can change the price of labor, its quantity, its quality and the way labor is exchanged in the market. We consider in this section the regulations on hiring, firing and working hours, and on minimum wages.

Recruitment: The typical employment contract establishes a permanent and full-time relationship between employer and employee. Hiring procedures in the public sector differ widely from those in the private sector. It is widely held that political parties play a large role in the hiring procedures of the public sector. In the unionized sector work contracts are usually of unlimited duration. In addition to the indefinite labor contract the labor law allows for temporary or fixed term contracts. Employment which owing to its nature, does not last for more than 30 working days is deemed to be "temporary" employment and employment for longer period is considered as "permanent" employment. This distinction is based on an objective criterion, that is, the nature of the work itself and thus of employment, rather than on any subjective will or decision of the parties. Labor contracts for an indefinite period are much more common in Turkish labor practice. Thus Turkish employers can in principle choose among the following employment contracts when hiring a new employee:

- Full-time permanent employment contract: This is the normal form of employment contract
- Contract for temporary jobs. These contracts do not entail any severance payments in the case of dismissals.
- Fixed Term contracts: There is no requirement of a minimum tenure. Work contracts over one year have to be made in writing. In case of dismissal from work after one year workers are entitled to receive lump sum severance payment. In case of dismissals during the fixed term period the employee has the right to sue the employer in the labor court for compensation of social rights. The decision of the court is conclusive.
- Part-time contracts: The labor law does not cover the part-time contracts.
- Training and apprenticeship contracts for youngsters: Turkish law holds that apprenticeship is not based on labor contract. Rather it is the apprenticeship contract which establishes the relationship between an apprentice and his/her employer. The subject matter of the apprenticeship contract is the acquisition of a certain skill or trade by the apprentice. Being special legislation, the Act of 1977 on Apprentices, Journeymen and Master Workmen aims to cover general provisions concerning apprentices. The Act has laid down the lower (12) and upper (18) age limits for the acquisition of the apprentice status. However, the apprenticeship contract shall continue to be valid even when the apprentice reaches the age of 18 during the existence of the contract. The Act requires the employer to pay the apprentice, effective from the date on which he begins work, a certain wage, which must not be less than 30 percent of the prevailing minimum wage. Furthermore these contracts entail substantial reductions in the social security contributions paid by the employer.

The above considerations reveal that the main characteristics of fixed term employment contracts is that they involve substantially lower firing costs than the typical contract. Furthermore, workers employed under fixed term contracts cannot sue the employer for "unfair" dismissal.

Trial periods: Jobs begin with a probationary period of one to three months determined by collective agreements. The beginning of the trial period is the date on which the employee actually starts work rather than the date on which the contract is concluded. Employees may be dismissed during the probationary period without any reason to be given or without any prior notice. However, the wage for working hours have to be paid in full including the wage for periods during weekends, public and general holidays. If eligibility conditions are satisfied, bonuses have to be paid together with premium payments and social aids. A labor contract with a trial clause enables the parties to establish their rights and duties over a short period before their relationship becomes definite. Once the trial period is over the length of the period is taken into consideration in the calculation of the employee's seniority.

Working Hours: The maximum number of normal working hours is set, by law, at 45 hours to be divided into 5 to 6 working days. Regarding the remuneration of overtime hours the law says that there should be an overtime premium of at least 50 percent over ordinary hours. The maximum number of overtime hours is restricted to 90 days per year per worker. According to the labor law night work hours are not remunerated with a premium. But in general collective bargaining includes clauses on 25 percent premium payment for night work. Holidays must be at least 12 and at most 34 days per year and paid leave no less than 30 days. The holiday period can be extended by collective bargaining. Holidays do not include the weekends and official holidays. The labor law also stipulates that daily working hours cannot exceed 9 and between full work spells there should be a minimum gap of 12 hours. There is little flexibility in the organization of working hours.

Rest periods: The weekend starts either on Saturday or after 1:00 p.m. on Saturday. If employees have to work at weekends (as for example hospitals), they must receive at least 24 hours of uninterrupted rest period during the week. Rest periods during the working days are: 15 minutes for less than 4 hours work, 30 minutes for 4-7.5 hrs and 1 hour for more than 7.5 hour work.

Protection of female employees: Night work for female workers between 8:00 p.m. and 6.00 a.m. is in general prohibited. Pregnant women stop working six weeks before the expected date of confinement and receive payment of less than full pay from the social security system for six weeks before and after the birth. The period can be extended with a medical report. Female workers are protected against dismissal during the period of pregnancy and they are entitled for unpaid leave of absence for additional period of 6 months after birth.

Dismissals: Dismissal of workers is regulated by the Labor Law. The minimum period of notice for dismissals increases with the length of service with the firm, not with age. During the period of notice the employee can take two hours per day off per week to look for a new job. Alternatively the employee can use the time at the end of the notice period. In addition Article 14 of the Labor Law requires that workers dismissed at the employer's initiative (except disciplinary dismissals) receive as emphasized in subsection 2.i lump-sum severance payments. Dismissed workers may sue employer in the labor courts. If the court decided in favor of the worker, that is if the dismissal is judged as "unfair" the minimum severance payment is increased by about three times. The lump-sum severance payment will not be affected.

Minimum Wages: Article 33 of the Labor Law No. 1475 specifies that minimum wages be determined at least every two years by a committee comprising representatives from trade unions, employers and various government bodies. In practice minimum wages are determined annually. Previously separate minimum wage rates were determined for different regions and sectors. Since 1988 the same minimum wage has been applied for all sectors and regions, with lower wages only for workers younger than sixteen years. The statutory minimum wage is binding across the economy, work status or contractual relationship with the employer. There are no reliable data on the coverage of minimum wage. It is claimed that in a number of small establishments a large number of workers who are registered as minimum wage earners receive substantially higher wages. The workers are reported as minimum wage earners in order to contain the tax and social security contributions. Furthermore it is to be noted that the practice of determining minimum wages on an annual basis leads to substantial fall in minimum real wages during the year due to the high inflation experienced in Turkey. Finally it should be recalled that lax enforcement of the law as emphasized by Agenor (1996) provides incentives to evade the law.

To study issues related with labor market flexibility we now turn to consideration of labour cost figures shown in Table 3 reported by the Turkish Confederation of Employer Association (TISK). The table does not show the wages after taxes. To obtain this amount we have to subtract from total labour cost payments such as social security premiums, severance pay, notification indemnity and payments to various funds such as defence industry encouragement fund, incentive for social assistance and solidarity fund, apprenticeship and vocational training fund, housing fund, sports centre fund and compulsory savings fund that are not paid to the worker. In addition we subtract from the remaining figure the income and related taxes and employee's social security premiums and obtain net wages that will be obtained by the workers. The Table 3 indicates that during the year 1997 out of every 100 TL paid as labour cost by the producer the worker has received only 54.56 TL. Consider now the term "f" introduced above within the context of the discussion around Figure 1, where "f" has been defined as the amount the firm has to pay in terms of taxes and fringe benefits. In terms of the components of labour cost presented in Table 3 this term would include cost items such as statutory social security premiums paid by the employer, payments by the employer to forced saving fund and to apprenticeship and

vocational training fund. On the other hand the term "t" showing the tax rate on wages to be paid by the employee would include costs such as payments by the worker to social security institutions, payments to forced saving fund and income tax to be paid by the employee. Given the values of (f, t) the determination of the equilibrium values of real wages and employment in the economy can be considered under two cases:

Homogeneous Labor Market: Given the labour demand schedule [MPL/(1+f)] = (w/p) and the labour supply schedule (w/p) = LS/(1-t) introduced above equilibrium levels of wages and employment will be determined by the intersection of these schedules as shown in Figure 1. In such a framework an increase in "f" would lead to a decrease in the equilibrium level of employment and real wages, and an increase in "t" would lead to a decrease in employment but an increase in real wages.

Non-homogeneous labor market consisting of formal and informal Labor Markets: Here we consider an economy with formal and informal labour markets. These markets have different wage setting mechanisms. The informal sector is assumed to be free from most type of labour regulation and to not pay most of the taxes and related charges summarised above. Activities in this sector rely mostly on provision of labour services without formal employment contracts. In the informal market job insecurity is pervasive and workers get very few benefits from their employers. The labour regulations are observed by the formal sector and this sector also pays all of the taxes and related charges such as social security contributions and payments to various funds discussed above.

Given the prevailing real wage in the formal sector and the value of "t", the labour supply in the formal market can be considered as given by the horizontal labour supply schedule in Figure 2a. The demand for formal labour is assumed to determine the level of employment in the formal sector. The labour supply in the informal sector is determined by subtracting from the total labour supply in the economy the formal employment level. Given the labour demand schedule for labour in the informal sector, real wages in the informal sector will be determined by the intersection of demand and supply schedules shown in Figure 2b. Since an increase in "f" shifts the labour demand schedule downward and an increase in "t" the labour supply schedule upward, an increase in either "f" or "t" will lead to a decrease in employment in the formal sector, and hence to an increase in employment in the informal sector. In this case a decrease in real wages in the informal sector is unavoidable. The real wages in the formal sector will not be affected by an increase in "f" as long as the labour supply is perfectly elastic. In other cases an increase in f may lead to a fall in real wages in the formal sector.

The homogeneous market model assumes that the labor market is flexible. On the other hand the non-homogenous labor market consisting of formal and informal sectors assumes that the informal sector is flexible, but not the formal sector.

3. FORMAL AND INFORMAL LABOR MARKETS

It has been shown by various economists that Turkish labour market is not homogeneous. There is a large informal labour market which is free from most type of labour regulation and which does not pay most of the taxes and related charges mentioned above. But there are various estimates regarding the size of this market as researches cannot agree on an operational definition of the informal sector.

Consider first the agricultural sector. In this sector most of the workers are unpaid family members and self-employed people forming on average 59.9 and 35.1 percent of all workers in that sector during 1998 respectively. As shown in Figure 4 the regular workers form only 5.05 percent of the agricultural labour force. Various economists stress that wage setting of unpaid family and self-employed labor in agricultural sector is dominated by informal arrangements. The sector faces low tax wedge on wages and they are largely free from most type of labor regulation. Because of the absence of regulatory restrictions this type of labor market can be assumed to be part of the informal labour market.

In non-agricultural sector the percentage of unpaid family members in total employment is rather low. It has amounted on average to 4.5 percent in 1998. The percentage of self-employed persons in non-agricultural sector is 25.7 percent and of regular employees 69.79 percent. In the non-agricultural sector wage determination varies among formal and informal sectors. In the formal non-agricultural sector we have the labor unions and the government, and wage determination is by collective bargaining or by the decision making process of the government. In the informal non-agricultural sector wages are determined mainly by the forces of demand and supply. Here the number of regular workers puts an upper bound on the number of formal workers in the non-agricultural sector.

In Turkey the number of trade unions and union membership have increased considerably after the enactment of the Laws on Trade Unions and Collective Bargaining in 1963. During the 1980's the military government has suspended all trade union activity, but with the gradual liberalization of political life after late 1983 the influence of trade unions started to increase again. As of 1999 xxx million workers are organized in trade unions. Collective bargaining is organized by industries with trade unions and employer's unions being in charge of wage negotiations. Agreements are concluded for periods of one to three years with separate clauses for each successive six months. Wage settlements are based in general on the rate of past inflation plus a welfare increment and apparently on the part of unions there is lack of concern for unemployment of the non-members. To have bargaining power in a particular enterprise, a union must represent the majority of the workers of that enterprise and 10 percent of the workers of the relevant industry. Civil servants, who account for a major portion of public sector employment, are not allowed to engage in collective bargaining. Their salaries are determined unilaterally by the government in January

and July of every year without any formal principles about salary determination process.

To determine the public sector employment we consider the figures given in Table 5. Tamzaraliglu (1997) gives estimates of public sector employment for general budget institutions and Ercevik (1997) for annex budget institutions and local governments. Figures for employment in SEE's and funds are obtained from the annual reports of Higher Inspection Council. Thus total number of public sector employees in 1994 is 2.88 million.

We subtract total number of public sector employees from total employment data reported in Table 1 to arrive at employment in the private sector and by further subtracting employment in agriculture we derive the employment in private non-agricultural sector. Next we subtract from the regular and casual employers in non-agricultural sector figure reported in Table 2.2 'Employment by professional Status and Branch of Economic Activity' of "Household Labor Force Survey Results April 1999" the number of registered wage earners from Ministry of Labor Registrations as reported by the Ministry of Labor publication "Calisma Hayati Istatistikleri" to obtain the estimate of informal wage earners in private non-agricultural sector. Employment in private non-agricultural formal sector is then obtained as the residual. Employment in formal sector is derived as the sum of public sector employment and employment in private non-agricultural formal sector, and employment in informal sector as the sum of employment in agricultural sector and private non-agricultural informal sector. The data reported in Table 6 reveal that the share of informal sector in Turkey is about 65 percent of total employment.

An alternative approach to determination of the informal sector followed by e.g. Portes (1994) and Assad (1997) considers the coverage of workers by social security institutions. The workers are divided into two groups: those who are covered by a social security program and those who are not covered by any social security program. The covered workers are considered as part of the formal sector and uncovered workers as part of the informal sector. Table 7 provides information on the coverage of social security institutions. Here we consider the "Retirement Fund" (RF) whose members are the public servants, and "Social Insurance Institution" (SII) whose members are workers in private and public sectors. We exclude from consideration the membership to the "Self Employment Institution" (SEI) which meets the social security needs of self employed individuals. Members belonging to SEI are considered as part of the informal sector. The table reveals that the share of informal sector in Turkey is around 60 percent of total employment, as long as the second approach to determination of the informal sector is accepted.

A third approach to determination of the informal sector is provided by Bulutay (1999) who considers the data provided by Household Labor Force Survey Results on "Employed persons by size of workplace and status in employment". He defines the informal sector as consisting of (i) self employed, (ii) unpaid family workers, (iii)

employers employing two or three workers, and (iv) regular and casual employees in private sector work places employing 1-3 workers. The Household Labor Force Survey Results provide information on self employed, unpaid family workers, and employers employing two or three workers presented in Table 8. Data on regular and casual employees in private sector work places employing 1-3 workers is not directly available. Bulutay (1999) multiplies the figures for private sector regular and casual employees with the share of employees at workplaces with 1-3 workers in total private sector employment. The share has been estimated as 0. 3386. Table 8 reveals that the share of informal sector in Turkey, when the third approach is adopted, is around 60 percent of total employment.

The above considerations reveal that the share of informal labour market in total employment is around 60 percent.

4. Productivity, Real Wages and Unit Labor Costs in Manufacturing

It has been stressed above that Turkish population increases on average at one million persons per year and that over time Turkey has to create continuously new jobs for the growing population. In the past Turkey has successfully solved the unemployment problem through the existence of a large and flexible informal labour market.

Let us now turn to consideration of empirical evidence on the flexibility of labour market by concentrating on developments in real wages and movements in unit labour costs. In Turkey detailed statistics on employment, value added and annual payments to employees are available in the manufacturing sector. Table 9 gives a summary of the statistics obtained from "Annual Manufacturing Industry Statistics" of the State Institute of Statistics for the period 1980-1997. The surveys cover all firms in the public sector, and private firms employing more than or equal to ten employees. The table reveals that the three sectors with highest share in total value added of the manufacturing sector are 'petroleum refineries', 'spinning, weaving and finishing textiles' and 'iron and steel basic industries', and the three sectors with highest growth rates of value added over the period 1980-1997 are 'fur dressing and dying industries', 'manufacture of professional and scientific, measuring and controlling equipment, n.e.c.' and 'manufacture of electrical appliances and housewares'. In terms of employment the sectors with the highest shares in total manufacturing employment are 'spinning, weaving and finishing textiles', 'fur dressing and dying industries' and 'knitting mills', and in terms of the employment creation the sectors with highest growth rates are 'manufactures of motor vehicles', 'cordage, rope and twine industries' and 'manufacture of transport equipment n.e.c.'.

Given the value added figure of sector i, VA_i, we deflate it by the implicit manufacturing price index p obtained from national income accounting data published by the State Institute of Statistics. The real value added figure is obtained as $va_i = (VA_i/p)$, and given the employment level of sector i, L_i, the productivity of labour in sector i is defined as $PROD_i = (va_i/L_i)$. Table 9 shows the large differences between

the productivity levels in the various manufacturing sub-sectors. The sectors with high productivity figures include 'petroleum refineries', 'malt liquors and malt' and 'tyre and tube industries', and the sectors with low productivity figures include 'cordage, rope and twine industries', 'manufacture of structural clay products' and 'manufacture of wood, and cork products not elsewhere classified'. The sectors with the highest productivity growth rates include 'fur dressing and dying industries', 'soft drinks and carbonated waters industries' and 'manufacture of soap and cleaning preperations, perfumes, cosmetics, and other toilet preperations'.

"Annual Manufacturing Industry Statistics" include information on annual payments to employees denoted by $w_i L_i$. Dividing this figure by employment we obtain the nominal wage data. The real wage is then obtained as (w_i/CPI), where CPI denotes the consumer price index and the unit labour cost measured in terms of TL as [w_i / $PROD_i$]. The unit labour cost measured in terms of foreign currency units is then obtained as [w_i / (PROD*E)], where E denotes the exchange rate. Table 10 shows the developments in real wage in manufacturing sector. From the table it follows that there have been large fluctuations in the real wage. The real wage rate in the manufacturing sector has decreased by 20 percent over the period 1982-1988, and increased by 97.9 percent over the period 1988-1991. The fall in the real wage rate during the period 1993-1996 has amounted to 28 percent. The picture does not change very much when one considers the developments in manufacturing sub-sectors.

The above considerations, showing the extreme flexibility of labour markets in Turkey, need some clarification. The country, after pursuing inward oriented development strategies for fifty years, had switched over to outward oriented policies in 1980. With the real depreciation of the Turkish currency real wages started to decline. By the second half of 1980's the popular support for the government had started to decrease. In the local elections of March 1989 the governing political party suffered heavy losses. To increase the political support the government conceded substantial pay increases during the collective bargaining in the public sector during 1989. Consequently, pressure built up, in the private sector to arrive at similarly high wage settlements. As a result of these developments the real wages started to increase. The increase in real wages was not sustainable. In 1994 the country faced balance of payments crises. With the introduction of stabilisation measures the trend in real wages was reversed. Real wages started to decrease. But because of the relatively weak coalition governments, the country had to revert its economic policies. At the end of 1999 Turkey had to sign a stand-by-agreement with the IMF. The variability of real wages in Turkey is probably much higher than the variability shown in Table 10, since firms covered by the "Annual Manufacturing Industry Statistics" are employing workers mainly from the formal sector and flexibility is higher in the informal sector.

Let us now turn to consideration of the developments in unit labour costs defined as (w_i /$PROD_i$) when measured in terms of TL and as (w_i /($PROD_i$ * E)) when measured in terms of foreign currency where E denotes the nominal exchange rate. Data on unit labor costs measured in foreign currency units are provided in Table 11. A close

consideration of the data reveal that unit labor costs have decreased during the 1980's up to 1988. Thereafter there is a sharp increase in unit labor costs. With the devaluation 1994 unit labor costs decreased again, but after 1995 the country reverted its economic policies. Unit labor cost started to increase until 1999 when the country signed the stand-by-agreement with the IMF. Thereafter we expect the unit labor cost to decrease again. The developments in unit labor costs for the manufacturing sector is shown in Figure 3.

5. CONCLUSION

The above considerations reveal that Turkey needs a comprehensive labour market reform if it wants to avoid the large fluctuations in real wages and unit labour costs expressed in foreign currency units, and reduce over time the size of the informal sector in the economy. The ultimate aim of any society is to increase the real wages over time. The increase in real wages has to be sustainable. Large fluctuations in real wages reveal that the policies followed by Turkey have not been sustainable. The country has to balance the aim of increasing real wages with the objective of remaining competitive in the world economy. Regarding the second aspect one could stress that with increasing globalisation international pressure will increase on Turkey to change its institutions, regulations and legislation protecting workers in the formal sector. The current system of formal and informal sectors with informal sector accounting for about 60 percent of total employment does not seem to be sustainable in the long run. In particular we may expect EU firms to complain about unfair trade practices by Turkey and EU may ask Turkey to enforce its own labour laws, laws on social security system and tax laws. When designing the new system of institutions, regulations and legislation for the Turkish labor market the country will have to take into account the following aspects:

It is widely believed that enterprises tend to become reluctant to take on new employees when faced with relatively high labor costs and with associated high firing costs. Employers become cautious about hiring new workers with contracts of indefinite duration, opting instead to rely on casual labor, subcontracting, or fixed-term contractual relationships. As a result the share of informal sector in total employment has risen over time. In Section 1 it was mentioned that Turkish population increases on average at one million persons per year and that over time Turkey has to create continuously new jobs. In the past Turkey has successfully solved the unemployment problem through the existence of the large informal sector. Over time this sector has grown considerably through the lax enforcement of tax, social security and labor laws. But lax enforcement of the laws has created different problems for the Turkish society. The economic units started to take it for granted that they can avoid the rule of law.

When the country will uniformly enforce the tax, social security and labor laws the informal sector will experience a rise in labor cost leading to a decrease in the demand for labor and hence an increase in unemployment. In order to minimize the problems of unemployment the policy makers have to change the current job security legislation

in order to reduce the firing costs, decrease the high social insurance contribution and tax rates and eliminate whenever possible payments to funds such as the compulsory savings fund. In addition efforts should be made to increase the contribution collection in the social insurance and tax systems. Furthermore part-time contracts could be incorporated into the labor law. It should be emphasized that policy makers when implementing the comprehensive labor market reforms will have to consider the goals of attaining increased labor market flexibility, avoiding potential increase in unemployment, enforcing uniformly the tax, social security and labor laws throughout the country, decreasing the share of the informal sector in total employment, and any possible trade-offs between these goals.

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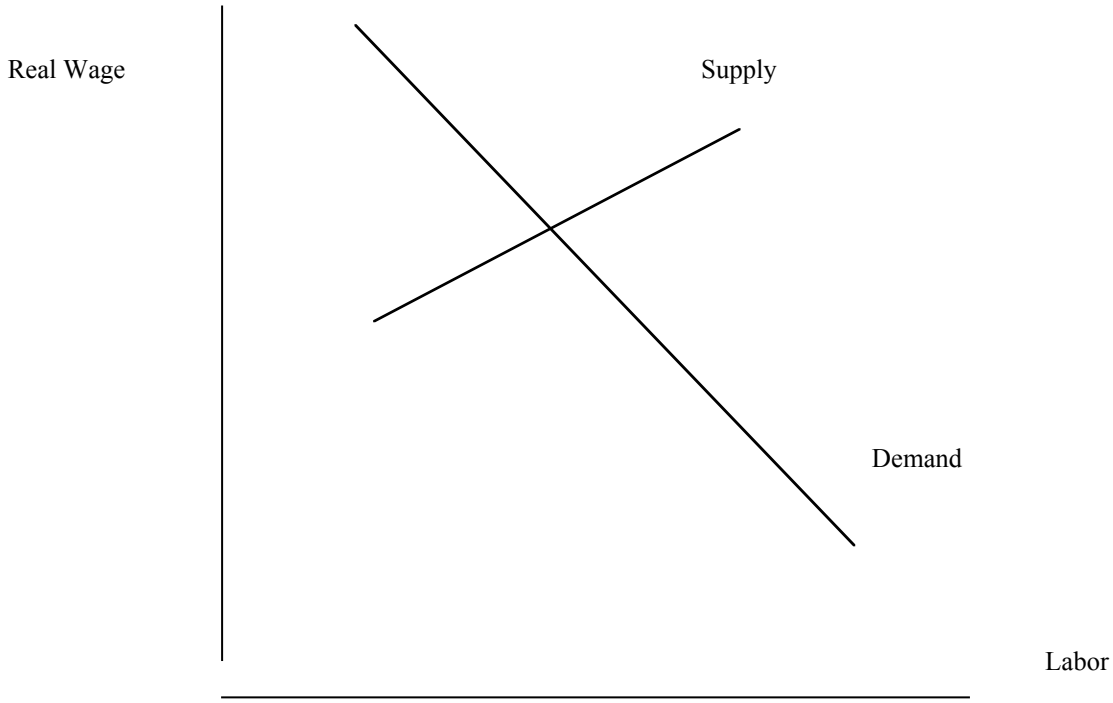


Figure 1

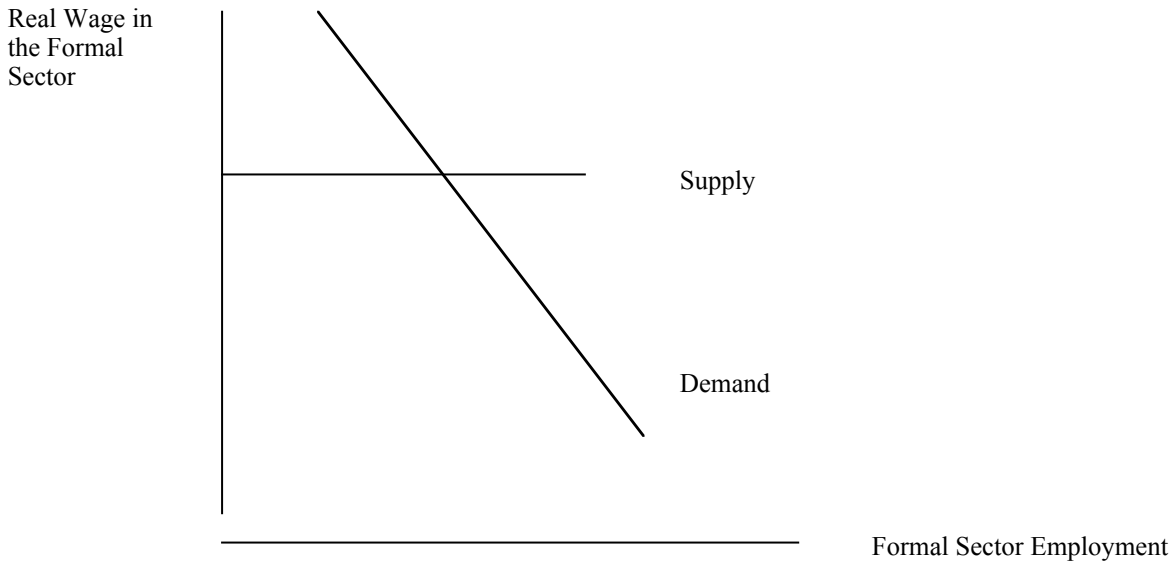


Figure 2a

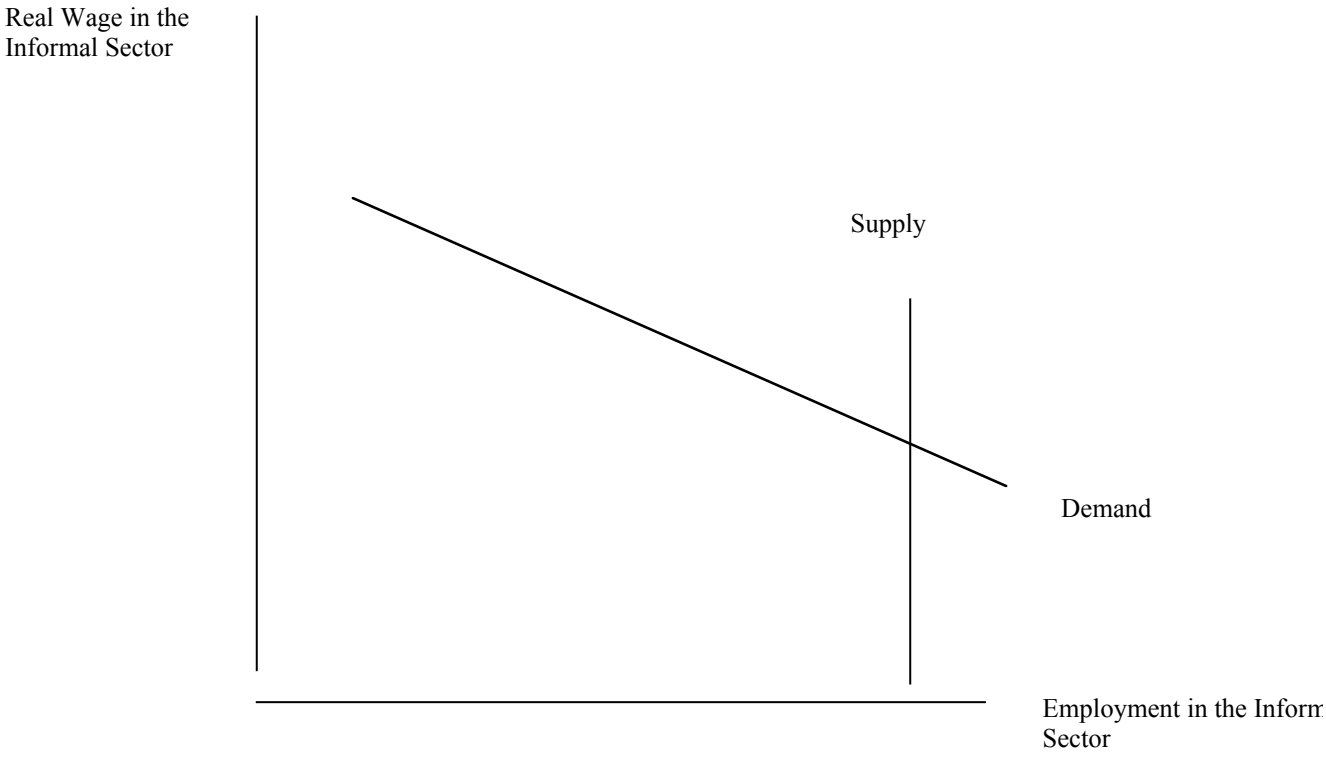


Figure 2b

Table 1: Labor Market Indicators

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Civilian Population ('000)	53,284	54,045	55,294	56,433	57,519	58,625	59,632	60,641	61,672	62,536	63,636	64,409
Population 12 and over	37,223	38,026	39,296	40,433	41,532	42,672	43,734	44,811	45,871	46,880	47,980	48,839
Labor Force ('000)	20,310	20,902	21,046	21,438	21,504	21,469	22,158	22,673	22,919	22,448	23,048	23,779
Participation Ratio (%)	54.56	54.97	53.56	53.02	51.78	50.31	50.66	50.60	49.96	47.88	48.04	48.69
Civilian Employment ('000)	18,541	19,048	19,323	19,736	19,769	19,804	20,357	21,120	21,544	21,057	21,594	22,051
Unemployment ('000)	1,769	1,854	1,723	1,702	1,735	1,665	1,801	1,553	1,375	1,391	1,454	1,728
Unemployment Rate (%)	9.5	9.7	8.9	8.6	8.8	8.4	8.8	7.4	6.4	6.6	6.7	7.8
Civilian Employment as share of total												
Agriculture	47.44	48.34	47.78	48.42	44.37	45.44	45.72	47.60	45.75	42.33	42.98	45.78
Industry	15.88	15.80	15.56	15.71	16.83	15.72	16.26	15.15	15.79	17.41	16.72	15.10
Mining	1.24	0.99	1.02	0.94	0.90	0.72	0.86	0.71	0.81	0.76	0.72	0.61
Manufacturing	14.28	14.46	14.19	14.45	15.61	14.47	14.90	13.93	14.57	15.87	15.47	14.14
Energy	0.36	0.35	0.35	0.32	0.33	0.53	0.50	0.52	0.42	0.54	0.53	0.35
Services	36.90	35.87	36.67	35.88	38.81	38.85	38.02	37.19	38.43	40.26	40.30	39.12
Construction	5.53	5.51	5.20	5.28	5.45	6.02	5.69	5.62	5.92	6.06	5.95	5.41
Trade	11.22	11.01	11.37	11.25	12.33	12.21	12.19	12.27	12.42	4.21	4.43	3.91
Transportation	4.22	4.37	4.23	4.09	4.40	4.66	4.24	3.99	4.15	13.50	13.38	13.35
Financial Services	2.31	2.32	2.16	2.18	2.42	2.24	2.33	2.31	2.10	2.40	2.37	2.36
Other Services	13.61	12.66	13.70	13.08	14.21	13.71	13.57	13.14	13.70	14.09	14.16	14.09

Note: Data refer to the average value of April and October Household Labor Force Survey results of each year.
Source: State Institute of Statistics, Labor Statistics 1997 and Haber Bulteni, June 1999

Table 2: Value Added, Employment and Productivity

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Value Added (Billion TL, 1987 Prices)															
Agriculture	12,636	12,398	12,786	12,667	12,727	12,669	13,255	13,314	14,356	13,272	14,177	14,049	14,651	14,463	14,358
Industry	11,197	12,224	12,821	13,628	14,975	15,909	17,667	19,276	19,618	20,529	22,302	22,909	24,268	26,260	24,775
Mining	1,031	1,108	1,112	1,089	1,127	1,258	1,439	1,475	1,407	1,590	1,550	1,620	1,624	1,521	1,642
Manufacturing	9,284	10,161	10,813	11,620	12,695	13,418	14,827	16,319	16,575	17,076	18,729	19,175	20,281	22,166	20,473
Electricity	882	955	896	920	1,154	1,232	1,401	1,482	1,636	1,863	2,023	2,114	2,363	2,573	2,660
Services	26,463	28,116	29,011	31,038	33,478	35,198	37,326	42,132	42,332	42,698	47,100	47,395	50,481	55,868	52,188
Construction	3,097	3,161	2,866	3,365	3,761	4,273	4,745	5,452	5,159	5,472	5,411	5,473	5,814	6,272	6,144
Trade	8,279	9,000	9,617	10,330	11,278	11,904	12,476	14,850	15,376	15,017	16,868	16,748	17,902	19,975	18,445
Transportation	5,792	6,370	6,817	7,133	7,758	7,652	7,856	8,660	8,761	9,045	10,123	10,085	10,899	12,081	11,835
Financing	1,910	1,935	2,008	2,047	2,070	2,120	2,207	2,288	2,389	2,447	2,496	2,515	2,463	2,453	2,417
Community Service	7,386	7,649	7,703	8,164	8,611	9,250	10,043	10,882	10,648	10,717	12,200	12,574	13,403	15,087	13,346
TOTAL	50,296	52,739	54,618	57,333	61,181	63,776	68,248	74,722	76,306	76,498	83,578	84,353	89,401	96,590	91,321
Employment ('000)															
Agriculture	8,960	8,953	8,924	8,895	8,866	8,837	8,813	8,786	8,796	9,208	9,233	9,557	8,772	8,999	9,307
Industry	2,391	2,401	2,476	2,552	2,612	2,723	2,771	2,847	2,944	3,010	3,007	3,100	3,328	3,113	3,310
Mining	197	192	196	196	200	224	230	230	229	188	198	185	178	143	175
Manufacturing	2,150	2,163	2,229	2,304	2,356	2,440	2,477	2,552	2,648	2,755	2,741	2,851	3,085	2,866	3,034
Energy	44	46	51	52	56	59	64	65	67	67	68	64	65	104	101
Services	5,172	5,310	5,437	5,557	5,782	5,987	6,281	6,635	6,841	6,832	7,086	7,081	7,672	7,694	7,740
Construction	913	914	918	921	952	979	1,034	1,097	1,026	1,049	1,005	1,042	1,077	1,193	1,158
Trade	1,465	1,531	1,575	1,624	1,703	1,780	1,899	2,044	2,080	2,098	2,197	2,220	2,438	2,419	2,482
Transportation	626	640	649	661	682	705	738	772	782	833	818	807	869	922	864
Financial Services	350	355	358	360	371	380	388	414	429	441	418	431	478	444	474
Other Services	1,818	1,870	1,937	1,991	2,074	2,143	2,222	2,308	2,524	2,411	2,648	2,581	2,810	2,716	2,762
TOTAL	16,523	16,664	16,837	17,004	17,260	17,547	17,865	18,268	18,541	19,048	19,323	19,736	19,769	19,804	20,357
Productivity (Billion TL/Worker)															
Agriculture	1.4103	1.3848	1.4328	1.4240	1.4355	1.4337	1.5040	1.5154	1.6322	1.4414	1.5354	1.4700	1.6702	1.6072	1.5427
Industry	4.6829	5.0912	5.1779	5.3402	5.7333	5.8424	6.3758	6.7705	6.6638	6.8201	7.4167	7.3899	7.2922	8.4355	7.4849
Mining	5.2311	5.7720	5.6729	5.5538	5.6359	5.6173	6.2585	6.4144	6.1447	8.4562	7.8278	8.7544	9.1224	10.6341	9.3827
Manufacturing	4.3183	4.6975	4.8511	5.0433	5.3882	5.4992	5.9859	6.3944	6.2596	6.1982	6.8329	6.7257	6.5741	7.7343	6.7477
Electricity	20.0426	20.7593	17.5607	17.6936	20.6022	20.8890	21.8906	22.7967	24.4133	27.8029	29.7523	33.0349	36.3598	24.7376	26.3409
Services	5.1166	5.2950	5.3359	5.5853	5.7901	5.8790	5.9427	6.3500	6.1879	6.2496	6.6468	6.6933	6.5799	7.2612	6.7426
Construction	3.3920	3.4587	3.1219	3.6532	3.9507	4.3644	4.5885	4.9696	5.0283	5.2162	5.3845	5.2521	5.3987	5.2571	5.3060
Trade	5.6512	5.8786	6.1058	6.3606	6.6222	6.6875	6.5695	7.2651	7.3921	7.1580	7.6779	7.5441	7.3430	8.2574	7.4316
Transportation	9.2516	9.9538	10.5040	10.7905	11.3755	10.8533	10.6444	11.2181	11.2032	10.8580	12.3757	12.4970	12.5419	13.1026	13.6981
Financing	5.4562	5.4517	5.6093	5.6862	5.5797	5.5778	5.6880	5.5265	5.5681	5.5486	5.9717	5.8361	5.1529	5.5256	5.0988
Community Service	4.0628	4.0904	3.9770	4.1005	4.1521	4.3164	4.5199	4.7150	4.2185	4.4449	4.6074	4.8719	4.7696	5.5549	4.8320
TOTAL	3.0440	3.1648	3.2439	3.3717	3.5447	3.6346	3.8202	4.0903	4.1155	4.0161	4.3253	4.2741	4.5223	4.8773	4.4860

Source: State Institute of Statistics
Note: Productivity data are obtained by dividing value added data to employment figures

Table 3: Labor Cost during 1997 (TL/Hour)

	Components (TL)	Percentages (%)
Basic Wage	266,707	39.50
Payments for Weekends and Public Holidays	53,896	7.98
Payments for Leaves	19,878	2.94
Bonuses and Premiums	118,481	17.55
Social Payments		
Meals	32,624	4.83
Fuel Pay	9,164	1.36
Transportation	19,977	2.96
Holiday and Additional Holiday Pay	5,132	0.76
Family, Children and Education Allowances	2,383	0.35
Birth, Death, Marriage Allowances	550	0.08
Other Social Payments	12,096	1.79
Statutory Social Security Premiums	61,852	9.16
Forced Saving Fund	12,912	1.91
Apprenticeship and Vocational Training Fund	3,863	0.57
Other payments by employer to the government	4,084	0.60
Severance Pay	37,694	5.58
Notification Indemnity	3,332	0.49
Work Outfit, Protective Materials	6,456	0.96
Other expenditures on labor	4,096	0.61
Total Labor Cost	675,177	100
Payment to Social Security Institution by the employee	43,020	6.37
Payment to Forced Saving Fund by the employee	6,810	1.01
Income tax to be paid by the employee	120,079	17.78
Stamp Duty	2,596	0.38
Net Wages	368,383	54.56

Source: Turkish Confederation of Employer Associations "1995 Labor Statistics and Labor Cost

Table 4: Employment by Professional Status and Branch of Economic Activity

	Agriculture				Non-Agriculture			
	Self employed and employee (1000 workers)	Unpaid Family Worker (1000 workers)	Self employed and employee (%)	Unpaid Family Worker (%)	Self employed and employee (1000 workers)	Unpaid Family Worker (1000 workers)	Self employed and employee (%)	Unpaid Family Worker (%)
Oct-88	2775	5454	31.55	62.01	2456	463	25.20	4.75
Apr-89	2935	5899	31.78	63.87	2552	483	26.13	4.95
Oct-89	3011	5771	32.80	62.87	2504	474	25.25	4.78
Apr-90	3045	5628	33.42	61.77	2395	446	24.98	4.65
Oct-90	3193	5713	34.13	61.07	2856	505	26.96	4.77
Apr-91	3375	6200	34.22	62.87	2714	503	26.72	4.95
Oct-91	2935	5838	31.72	63.10	2759	464	27.05	4.55
Apr-92	2962	5252	34.31	60.84	2946	591	26.91	5.40
Oct-92	3201	5282	35.92	59.28	3033	604	27.46	5.47
Apr-93	3201	5733	34.21	61.28	2701	445	26.10	4.30
Oct-93	2895	5374	33.50	62.18	2958	491	26.27	4.36
Apr-94	3399	5859	35.44	61.09	2774	474	25.86	4.42
Oct-94	3272	5264	36.27	58.35	2972	529	26.13	4.65
Apr-95	3481	5917	35.24	59.89	2754	512	25.14	4.67
Oct-95	3738	5983	36.55	58.50	2896	463	25.98	4.15
Apr-96	3280	5969	33.64	61.21	2882	499	24.79	4.29
Oct-96	3474	5735	34.87	57.57	2980	496	25.39	4.23
Apr-97	3616	5486	37.64	57.10	2944	478	25.39	4.12
Oct-97	3396	4198	41.32	51.08	3104	383	24.64	3.04
Apr-98	3535	5081	39.15	56.27	3086	415	25.29	3.40
Oct-98	3599	5281	37.75	55.39	3027	485	24.37	3.90
Apr-99	3596	5982	35.62	59.25	2889	542	24.17	4.53
Average			35.05	59.86			25.74	4.47

Table 5: Employment in the Public Sector

	Civil Servants	Temporary Workers	Workers	Contracted Personnel	Other	TOTAL
General Budget						
1989	1,236,213	5,047	69,344	7,285	10,328	1,328,217
1990	1,278,237	4,594	72,296	14,138	10,328	1,379,593
1991	1,298,940	4,591	72,278	14,694	10,365	1,400,868
1992	1,352,121	15,129	72,710	13,342	10,877	1,464,179
1993	1,403,436	18,342	72,791	11,380	10,887	1,516,836
1994	1,403,412	9,260	72,944	11,127	10,924	1,507,667
Annex Budget						
1989	142,706	72,922	85,130	3,492	46,394	350,644
1990	144,324	75,302	86,595	3,171	46,686	356,078
1991	144,245	75,145	92,294	3,682	55,803	371,169
1992	152,893	71,701	84,433	3,413	73,265	385,705
1993	174,609	107,178	11,573	3,385	103,723	400,468
1994	173,509	11,074	90,517	3,256	105,129	383,485
Local Governments						
1989	112,193		92,414	758		205,365
1990	114,479		92,418	1,043		207,940
1991	123,030		92,418	909		216,357
1992	129,120		94,423	1,100		224,643
1993	144,477		107,067	1,055		252,599
1994	145,934		107,098	1,008		254,040
State Economic Enterprises						
1989	57,314		429,738	228,216		715,268
1990	34,068		443,004	243,111		720,183
1991	21,758		422,013	257,048		700,819
1992	17,504		411,305	258,737		687,546
1993	25,688		392,239	254,798		672,725
1994	24,132		368,237	251,571		643,940
Funds and Social Security Institutions						
1989	61,383		18,102	5,167		84,652
1990	62,529		17,236	6,088		85,853
1991	67,180		15,904	7,325		90,409
1992	67,855		21,609	7,683		97,147
1993	68,600		24,303	10,673		103,576
1994	69,026		14,205	9,084		92,315
TOTAL						
1989	1,609,809	77,969	694,728	244,918	56,722	2,684,146
1990	1,633,637	79,896	711,549	267,551	57,014	2,749,647
1991	1,655,153	79,736	694,907	283,658	66,168	2,779,622
1992	1,719,493	86,830	684,480	284,275	84,142	2,859,220
1993	1,816,810	125,520	607,973	281,291	114,610	2,946,204
1994	1,816,013	20,334	653,001	276,046	116,053	2,881,447

Source: For Employment in General Budget Institutions see Tamzaralioglu (1997)
For employment in Annex budget and local government see Ercevik (1997)
Employment data for SEE and funds are obtained from Higher Inspection Council

Table 6: Determination of Employment in Formal and Informal Sectors

	1989	1990	1991	1992	1993	1994
Total Employment ('000)	19,050	19,326	19,738	19,772	19,806	20,357
- Employment in the Public Sector	2,684	2,750	2,780	2,859	2,946	2,881
Employment in the Private Sector	16,366	16,576	16,958	16,913	16,860	17,476
- Employment in Agriculture ('000)	9,208	9,233	9,557	8,772	8,999	9,307
Employment in Non-Agricultural Private Sector ('000)	7,158	7,343	7,401	8,141	7,861	8,169
Regular and Casual Employees in N-Agr. Sector	6,937	7,232	6,977	7,410	7,813	7,875
- Ministry of Labor Registrations	3,564	3,564	3,513	3,596	3,742	3,815
Employment in Private Non-Agr. Informal Sector	3,373	3,668	3,464	3,814	4,071	4,060
Employment in Private Non--Agr. Formal Sector	3,785	3,675	3,937	4,327	3,790	4,109
Employment in Informal Sector	12,581	12,901	13,021	12,586	13,070	13,367
Employment in Formal Sector	6,469	6,425	6,717	7,186	6,736	6,990
Share of Informal Sector	66.04	66.76	65.97	63.65	65.99	65.66
Share of Formal Sector	33.96	33.24	34.03	36.35	34.01	34.34

Source: Own Calculations

e 7: Determination of Employment in Formal and Informal Sectors from the Data on Contributions to Social Security Institutions

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
l Employment ('000)	19,048	19,323	19,736	19,769	19,804	20,357	21,120	21,544	21,057	21,594	22,051
Number of Contributors to SSK ('000)	3,612	3,821	3,992	4,274	4,592	5,188	5,645	5,924	6,165	6,876	7,120
Number of Contributors to Emekli Sandigi (ES) ('000)	1,500	1,560	1,640	1,730	1,812	1,896	1,880	1,964	2,036	2,072	2,109
Total Number of Contributors ('000)	5,112	5,381	5,632	6,004	6,404	7,084	7,525	7,888	8,201	8,948	9,229
loyment in Informal Sector ('000)	13,936	13,942	14,104	13,765	13,400	13,273	13,595	13,656	12,856	12,646	12,822
loyment in Formal Sector ('000)	5,112	5,381	5,632	6,004	6,404	7,084	7,525	7,888	8,201	8,948	9,229
e of Informal Sector (%)	73.16	72.15	71.46	69.63	67.66	65.20	64.37	63.39	61.05	58.56	58.15
e of Formal Sector (%)	26.84	27.85	28.54	30.37	32.34	34.80	35.63	36.61	38.95	41.44	41.85

ce: Own Calculations

Table 8: Estimates of the Informal Sector by third Approach

	Self Employed ('000)	Unpaid Family Workers ('000)	Employers employing 2-3 workers ('000)	Private Sector Regular Employee ('000)	Private Sector Casual Employee ('000)	Private Sector Regular & Casual Employees in Workplaces with 1-3 workers	Informal Sector Employment ('000)	Share of Informal Sector (%)
Apr-98	5352	5496	618	4448	346	1623	13089	61.65
Oct-98	5322	5767	710	4486	394	1652	13451	63.36
Apr-99	5463	6523	474	4170	427	1557	14017	66.02

Table 9: Value Added, Employment and Productivity in Manufacturing Sector

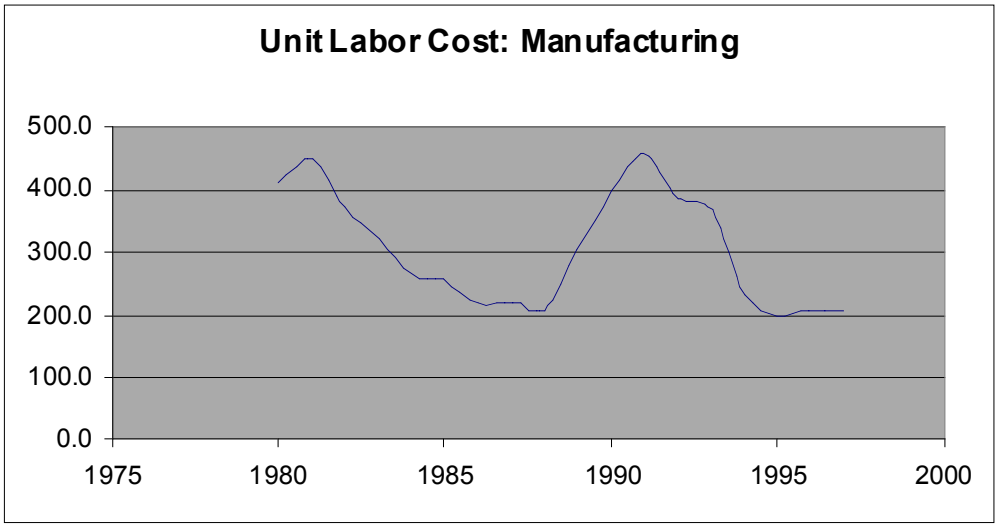
ISIC		Value Added 1987 prices 1997	Share of VA in total Manufacturing Value Added	Growth Rate of Value Added 1980-97	Employment in 1997	Share of Employment in total Manufacturing Employment	Growth Rate of Emplomen 1980-97	Productivity in 1997	Growth Rate of Productivity 1980-97
31	Manufacture of food, beverages and tobacco	3,358,175	11.97	4.95	177,493	15.56	3.77	18.92	5.44
3111	Slaughtering, preparing and preserving meat	240,353	0.86	9.06	12,511	1.10	4.65	19.21	5.29
3112	Manufacture of dairy products	162,607	0.58	11.79	6,085	0.53	3.73	26.72	9.19
3113	Canning and preserving of fruits and vegetables	311,326	1.11	9.51	19,672	1.72	-1.67	15.83	4.87
3114	Canning, preserving and processing of fish and crust	35,178	0.13	12.27	1,807	0.16	-0.99	19.47	8.55
3115	Manufacture of vegetable and animal oils and fats	449,488	1.60	6.14	10,991	0.96	-0.77	40.90	7.81
3116	Grain mill products	122,156	0.44	3.33	9,249	0.81	-0.46	13.21	4.32
3117	Manufacture of bakery products	269,388	0.96	6.46	22,804	2.00	6.44	11.81	7.23
3118	Sugar factories and refineries	138,530	0.49	4.26	19,325	1.69	-0.63	7.17	4.72
3119	Manufacture of cocoa, chocolate and sugar confectic	251,021	0.89	15.05	11,465	1.00	-1.19	21.89	8.61
3121	Manufacture of food products not classified elsewhe	378,857	1.35	4.90	23,120	2.03	0.07	16.39	6.08
3122	Manufacture of prepared animal feeds	130,239	0.46	9.22	6,253	0.55	2.08	20.83	6.70
3131	Distilling, rectifying and blending spirits	114,868	0.41	2.43	3,285	0.29	-4.08	34.97	0.35
3132	Wine industries	11,341	0.04	-2.74	487	0.04	2.65	23.29	3.26
3133	Malt liquors and malt	157,489	0.56	5.44	2,140	0.19	-4.95	73.59	9.53
3134	Soft drinks and carbonated waters industries	209,425	0.75	15.00	5,617	0.49	-4.95	37.28	12.35
3140	Tobacco manufactures	375,909	1.34	-0.77	22,682	1.99	1.56	16.57	4.19
32	Textile, wearing apparel and leather industries	4,811,661	17.15	8.02	398,871	34.96	-0.18	12.06	4.31
3211	Spinning, weaving and finishing textiles	2,194,975	7.83	4.93	162,408	14.24	9.31	13.52	5.11
3212	Manufacture of made-up textile goods except wearin	392,045	1.40	15.87	35,164	3.08	0.84	11.15	4.25
3213	Knitting mills	721,359	2.57	13.52	65,164	5.71	-8.21	11.07	4.21
3214	Manufacture of carpets and rugs	186,899	0.67	7.71	12,118	1.06	-1.88	15.42	6.87
3215	Cordage, rope and twine industries	1,394	0.00	-4.92	349	0.03	13.43	3.99	3.28
3219	Manufacture of textiles not elsewhere classified	41,349	0.15	-6.92	2,828	0.25	11.97	14.62	-5.03
3221	Manufacture of fur and leather products	135,732	0.48	13.83	10,686	0.94	1.99	12.70	1.85
3222	Manufacture of wearing apparel, except fur and leath	919,983	3.28	18.98	90,484	7.93	0.11	10.17	5.38
3231	Tanneries and leather finishing	92,334	0.33	4.18	7,386	0.65	9.19	12.50	4.07
3232	Fur dressing and dyeing industries	…	…	16.67	…	…	2.41	…	12.35
3233	Manufacture of products of leather and leather substi	17,875	0.06	13.21	1,835	0.16	2.41	9.74	4.02
3240	Manufacture of footwear, except vulcanized or moul	107,716	0.38	7.49	10,449	0.92	-0.46	10.31	5.08
33	Manufacture of wood and wood products including f	324,027	1.16	7.25	25,371	2.22	-0.52	12.77	5.66
3311	Sawmills, planing and other wood mills	154,967	0.55	5.09	11,725	1.03	-1.20	13.22	5.61
3312	Manufacture of wooden and cane containers and sma	9,240	0.03	8.55	820	0.07	5.84	11.27	7.73
3319	Manufacture of wood and cork products not elsewhe	2,985	0.01	-3.66	587	0.05	5.84	5.09	-2.45
3320	Manufacture of furniture and fixtures, except primari	156,836	0.56	12.62	12,239	1.07	0.02	12.81	6.79
34	Manufacture of paper, paper products, printing and p	842,927	3.01	8.11	32,964	2.89	-1.51	25.57	7.31
3411	Manufacture of pulp, paper and paperboard	106,813	0.38	4.27	5,946	0.52	0.06	17.96	5.78
3412	Manufacture of containers and boxes of paper and pa	158,055	0.56	7.96	9,790	0.86	1.94	16.14	5.80
3419	Manufacture of pulp, paper and paperboard articles n	42,248	0.15	7.16	2,201	0.19	1.94	19.19	7.10
3421	Printing, publishing and allied industries	535,811	1.91	10.34	15,027	1.32	-0.64	35.66	8.40
35	Manufacture of chemicals, petro-chemicals, coal, rut	8,015,911	28.58	6.07	106,781	9.36	-3.96	75.07	4.73
3511	Manufacture of basic industrial chemicals except fert	169,485	0.60	0.36	4,238	0.37	1.97	39.99	4.32
3512	Manufacture of fertilizers and pesticides	303,224	1.08	4.82	6,677	0.59	2.36	45.41	6.58
3513	Manufacture of synthetic resins, plastic materials and	572,683	2.04	8.46	11,153	0.98	0.76	51.35	6.49
3521	Manufacture of paints, varnishes and lacquers	324,747	1.16	10.62	5,639	0.49	2.51	57.59	9.86
3522	Manufacture of drugs and medicines	675,592	2.41	11.52	14,752	1.29	2.59	45.80	8.73
3523	Manufacture of soap and cleaning preperations, perfi	579,013	2.06	12.62	8,126	0.71	-1.17	71.25	10.11
3529	Manufacture of chemical products not elsewhere cla	199,179	0.71	9.22	6,310	0.55	-1.11	31.57	6.63
3530	Petroleum Refineries	3,914,049	13.95	5.52	4,941	0.43	5.59	792.16	6.63
3541	Manufacture of asphalt paving and roofing materials	5,547	0.02	5.33	639	0.06	0.96	8.68	-0.26
3542	Manufacture of coke coal and briquettes	…	…	-1.55	…	…	3.38	…	-0.01
3543	Compounded and blended lubricating oils and greas	…	…	-0.75	…	…	1.15	…	-1.70
3544	Liquid petroleum gas tubing	157,604	0.56	10.48	2,895	0.25	2.37	54.44	7.10
3551	Tyre and tube industries	416,881	1.49	8.61	5,805	0.51	3.69	71.81	6.24
3559	Manufacture of rubber products not elsewhere classi	102,959	0.37	6.68	8,549	0.75	3.69	12.04	6.30
3560	Manufacture of plastic products not elsewhere classi	490,132	1.75	10.49	25,869	2.27	0.51	18.95	6.79
36	Manufacture of non-metallic mineral products excep	1,899,797	6.77	7.59	74,086	6.49	0.51	25.64	6.86
3610	Manufacture of pottery, china and earthenware	167,579	0.60	9.54	7,336	0.64	0.06	22.84	9.03
3620	Manufacture of glass and glass products	401,536	1.43	7.62	13,480	1.18	0.78	29.79	7.56
3691	Manufacture of structural clay products	99,671	0.36	3.81	20,499	1.80	3.76	4.86	3.03
3692	Manufacture of cement, lime and plaster	824,079	2.94	7.46	12,013	1.05	-1.38	68.60	8.67
3699	Manufacture of non-metallic mineral products n.e.c.	406,932	1.45	7.84	20,758	1.82	-0.53	19.60	4.08
37	Basic metal industries	2,456,440	8.76	5.81	64,348	5.64	-0.53	38.17	7.20
3710	Iron and stee basic industries	2,174,893	7.75	6.53	50,631	4.44	-4.12	42.96	7.06
3720	Non-Ferrous Metal Basic Industries	281,547	1.00	2.56	13,717	1.20	1.01	20.53	6.68
38	Manufacture of fabricated metal products, machinery	6,220,511	22.18	8.41	253,104	22.19	2.15	24.58	6.91
3811	Manufacture of cutlery, hand tools and general hardv	193,784	0.69	7.52	12,921	1.13	1.72	15.00	5.37

Table 10: Real Wage Rate

	Food, Beverages and Tobacco	Textile, wearing Apperal and Leather Industries	Wood and Wood Products	Paper and Paper Products	Chemicals, Petro-chemicals, Coal, Rubber and Plastics	Non-metallic Mineral Products	Basic Metal Industries	Fabricated Metal Products	Other Manufacturing Industries	Manufacturing Industry
	31	32	33	34	35	36	37	38	39	3
1980	1,085,820.9	888,541.1	830,013.5	1,526,383.0	1,639,678.6	1,052,454.1	1,798,950.1	1,324,017.1	793,398.7	1,214,779.8
1981	1,203,814.8	1,050,277.6	882,427.0	1,391,232.4	1,639,261.8	1,139,050.0	1,938,703.0	1,313,956.9	736,458.2	1,294,023.2
1982	1,175,331.7	984,628.6	848,459.3	1,573,141.5	1,655,620.1	1,312,755.0	1,847,997.0	1,378,202.6	666,902.8	1,296,941.1
1983	1,137,338.3	961,754.3	812,839.9	1,454,833.2	1,572,809.8	1,196,776.5	1,752,449.8	1,345,847.2	801,553.3	1,242,311.9
1984	970,646.3	860,280.1	741,334.4	1,240,617.0	1,430,567.6	1,124,684.2	1,530,893.8	1,228,349.3	758,131.1	1,105,095.7
1985	908,169.2	811,196.0	649,409.4	1,176,636.9	1,351,994.5	1,183,659.0	1,384,213.1	1,195,313.5	707,135.0	1,053,411.6
1986	858,879.3	821,679.2	644,666.8	1,109,575.9	1,374,778.6	1,024,618.1	1,381,583.2	1,138,083.5	720,777.9	1,023,167.9
1987	908,455.9	861,192.1	711,557.0	1,242,895.4	1,499,576.8	1,071,039.1	1,438,769.5	1,265,463.0	770,242.1	1,097,692.4
1988	792,842.9	854,240.4	688,506.6	1,096,573.7	1,472,278.3	1,069,962.0	1,338,081.5	1,174,898.0	765,668.3	1,034,701.0
1989	1,078,019.3	937,292.6	858,585.2	1,625,350.2	1,956,754.8	1,334,426.4	1,925,014.7	1,429,656.1	894,528.6	1,298,490.2
1990	1,392,610.3	1,013,488.8	1,037,091.1	1,857,583.2	2,419,700.1	1,874,662.9	2,229,553.2	1,748,489.0	1,061,896.1	1,573,093.4
1991	1,795,757.2	1,389,038.1	1,405,647.0	2,193,882.8	2,997,932.6	2,037,108.6	3,480,985.3	2,215,945.1	1,173,174.7	2,048,514.5
1992	1,905,083.6	1,146,014.5	1,281,293.8	2,140,803.0	2,965,818.1	2,075,591.9	3,352,992.4	2,127,480.4	1,127,446.6	1,939,179.6
1993	1,953,745.9	1,193,370.8	1,390,302.9	2,112,563.7	2,995,017.3	2,052,892.2	3,266,111.3	2,224,481.0	1,060,476.7	1,973,693.3
1994	1,633,436.0	922,132.5	1,066,618.9	1,729,460.1	2,599,255.1	1,604,330.8	2,713,725.5	1,732,092.5	784,321.3	1,584,619.2
1995	1,428,871.0	896,487.8	887,062.5	1,604,042.1	2,508,752.7	1,595,598.7	2,082,006.3	1,734,076.3	762,860.6	1,466,113.6
1996	1,327,145.0	935,989.9	896,645.1	1,563,677.2	2,265,967.9	1,576,271.5	2,265,002.8	1,678,977.2	810,478.9	1,419,170.8
1997	1,407,655.7	960,654.7	836,413.8	1,749,595.9	2,386,626.6	1,599,700.8	2,268,463.8	1,729,788.1	972,063.0	1,469,670.5

Table 12: Unit Labor Cost in Foreign Currency Units

ISIC	Commodity	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
31	Manufacture of food, beverages and tobacco	469.9	489.4	326.1	326.7	247.0	219.4	218.2	206.6	181.3	292.1	400.3	407.6
3111	Slaughtering, preparing and preserving meat	532.6	514.1	370.1	426.1	361.5	316.2	363.4	469.4	459.3	497.2	627.8	763.6
3112	Manufacture of dairy products	698.4	557.5	555.8	384.7	292.1	275.2	262.7	228.1	247.0	295.8	461.3	325.6
3113	Canning and preserving of fruits and vegetables	302.6	382.1	308.9	323.9	227.1	255.0	233.1	214.6	159.8	218.9	330.6	337.3
3114	Canning, preserving and processing of fish and crustacea	137.0	327.3	219.7	215.9	258.5	165.0	99.3	158.7	185.1	245.7	318.7	338.8
3115	Manufacture of vegetable and animal oils and fats	299.9	323.3	334.5	249.7	170.9	243.3	216.1	183.7	180.6	229.9	342.3	301.4
3116	Grain mill products	312.5	449.6	313.5	346.9	184.1	231.6	328.9	290.3	241.9	258.3	500.2	372.8
3117	Manufacture of bakery products	612.5	831.5	653.2	441.8	298.9	396.0	410.7	302.3	370.6	360.9	538.6	480.2
3118	Sugar factories and refineries	574.7	441.8	468.7	824.2	859.0	394.4	492.1	473.7	341.8	584.9	699.1	603.6
3119	Manufacture of cocoa, chocolate and sugar confectionary	259.6	325.8	320.5	305.6	261.6	330.7	236.6	207.9	246.7	386.8	560.0	502.3
3121	Manufacture of food products not classified elsewhere	592.5	573.4	714.0	443.8	468.7	331.1	319.5	294.2	236.0	397.6	588.7	752.9
3122	Manufacture of prepared animal feeds	398.2	571.0	568.2	443.1	306.5	356.9	198.9	213.4	246.3	391.8	625.8	625.4
3131	Distilling, rectifying and blending spirits	114.9	116.8	95.6	74.0	59.6	38.9	48.3	42.2	40.1	62.6	103.4	117.9
3132	Wine industries	373.9	557.4	420.2	331.7	332.3	264.2	386.8	162.2	212.0	308.0	591.0	809.3
3133	Malt liquors and malt	350.1	324.8	291.9	268.2	194.0	199.7	171.9	129.1	112.4	193.0	264.1	222.0
3134	Soft drinks and carbonated waters industries	548.2	801.6	518.9	481.9	363.8	300.0	279.7	248.2	220.7	316.6	291.3	470.1
3140	Tobacco manufactures	658.2	692.8	218.5	256.7	185.7	145.3	133.1	128.6	96.4	234.1	287.9	320.0
32	Textile, wearing apparel and leather industries	460.2	652.5	505.5	418.5	330.7	338.9	348.5	280.4	319.3	420.8	493.7	597.5
3211	Spinning, weaving and finishing textiles	471.4	707.1	544.6	450.4	362.4	359.6	368.8	293.2	336.9	443.2	523.2	691.8
3212	Manufacture of made-up textile goods except wearing app	364.3	860.1	420.2	301.1	369.2	476.1	461.9	245.0	325.5	460.2	415.9	407.8
3213	Knitting mills	321.3	409.3	278.4	385.9	278.2	306.4	271.3	261.8	244.1	375.8	398.0	454.5
3214	Manufacture of carpets and rugs	342.7	403.4	451.8	350.4	326.1	350.3	304.4	327.7	329.3	454.7	471.1	646.1
3215	Cordage, rope and twine industries	733.7	650.3	653.8	645.5	534.2	446.9	461.3	412.0	599.0	571.4	742.8	705.3
3219	Manufacture of textiles not elsewhere classified	239.9	260.8	208.1	151.1	122.5	88.5	187.4	133.0	221.5	355.9	589.2	733.8
3221	Manufacture of fur and leather products	315.0	302.3	366.3	124.4	135.8	204.4	184.6	157.0	212.5	276.7	339.6	325.2
3222	Manufacture of wearing apparel, except fur and leather	509.5	436.3	430.1	342.5	227.9	318.7	355.3	260.9	283.3	377.7	452.6	460.1
3231	Tanneries and leather finishing	661.9	568.3	484.8	420.9	319.3	273.1	286.1	231.5	354.2	332.5	632.5	474.0
3232	Fur dressing and dyeing industries		...		...				...	371.5	484.9	490.8	...
3233	Manufacture of products of leather and leather substitutes	155.8	...	337.8	...	133.2	158.2	275.7	...	191.2	202.6	318.2	...
3240	Manufacture of footwear, except vulcanized or moulded r	623.7	926.0	771.9	666.8	428.6	604.8	460.9	527.3	588.3	608.8	841.3	744.3
33	Manufacture of wood and wood products including furnit	485.3	659.5	569.4	452.4	371.5	290.2	321.9	247.5	269.0	416.7	533.3	672.3
3311	Sawmills, planing and other wood mills	504.7	824.1	629.1	460.1	391.4	404.4	298.4	228.3	284.0	439.6	594.0	802.9
3312	Manufacture of wooden and cane containers and small ca	593.2	556.4	821.7	735.9	378.6	387.7	358.8	294.6	268.8	311.1	788.9	317.6
3319	Manufacture of wood and cork products not elsewhere cla	228.3	294.6	433.5	575.1	369.1	344.7	449.8	243.7	387.8	588.8	556.3	530.4
3320	Manufacture of furniture and fixtures, except primarily of	427.4	345.1	372.2	393.5	313.4	152.6	389.1	311.2	230.4	356.5	392.0	425.2
34	Manufacture of paper, paper products, printing and publis	679.6	674.9	557.5	435.3	360.6	305.6	338.4	295.9	264.4	429.2	494.6	569.4
3411	Manufacture of pulp, paper and paperboard	852.0	1,100.7	724.6	493.5	389.1	294.5	347.5	287.5	278.2	414.2	693.1	734.2
3412	Manufacture of containers and boxes of paper and paperb	434.8	473.6	422.1	411.0	321.5	312.2	360.8	302.4	197.5	349.9	408.3	585.3
3419	Manufacture of pulp, paper and paperboard articles n.e.c.	254.4	359.5	360.7	381.6	409.2	284.6	265.8	198.7	186.6	371.3	293.5	362.0
3421	Printing, publishing and allied industries	679.3	499.4	477.3	394.6	339.7	318.7	333.2	323.9	302.5	493.3	423.1	467.5
35	Manufacture of chemicals, petro-chemicals, coal, rubber a	188.6	139.1	128.3	132.4	127.8	121.5	80.2	119.4	101.6	153.0	203.8	241.0
3511	Manufacture of basic industrial chemicals except fertilizer	228.0	487.7	355.9	299.1	201.8	212.1	218.8	201.5	252.0	433.6	577.2	618.1
3512	Manufacture of fertilizers and pesticides	513.3	356.2	267.6	409.4	325.3	303.6	325.4	240.7	141.0	249.7	450.1	363.4
3513	Manufacture of synthetic resins, plastic materials and man	240.9	526.1	337.7	252.1	242.6	334.1	152.7	120.2	80.8	184.2	365.9	652.1
3521	Manufacture of paints, varnishes and lacquers	444.9	523.8	240.5	349.4	246.0	234.1	240.8	155.1	215.4	305.0	357.4	720.2
3522	Manufacture of drugs and medicines	370.3	410.1	434.4	363.4	281.5	246.6	285.0	237.2	245.0	297.2	351.7	344.7
3523	Manufacture of soap and cleaning preparations, perfumes,	278.6	180.2	245.7	319.5	197.2	158.1	191.0	184.8	186.7	254.9	342.1	309.0
3529	Manufacture of chemical products not elsewhere classifiec	426.8	511.5	474.1	392.6	352.3	293.0	265.9	294.9	262.9	274.4	459.5	555.8
3530	Petroleum Refineries	57.8	32.1	32.6	21.5	16.0	17.1	9.3	19.9	14.4	27.0	28.9	40.3
3541	Manufacture of asphalt paving and roofing materials	345.9	230.9	536.0	400.4	392.5	288.6	333.6	827.1	348.7	617.0	703.6	792.2
3542	Manufacture of coke coal and briquettes	1,183.7	1,434.5	...	...	...	640.1	596.1	845.1	690.7	654.7	918.6	1,841.9
3543	Compounded and blended lubricating oils and grease	79.8	134.2	112.6	77.3	72.7	87.9	11.3	38.2	70.7	136.6	200.4	354.9
3544	Liquid petroleum gas tubing	265.0	402.6	...	...	...	245.8	177.0	250.1	244.1	234.1	265.8	332.6
3551	Tyre and tube industries	307.1	381.8	355.6	289.9	207.6	171.2	282.0	211.2	192.0	300.9	485.3	514.7
3559	Manufacture of rubber products not elsewhere classified	458.7	579.9	669.2	469.4	369.6	343.0	340.6	303.0	326.1	445.6	557.1	494.9
3560	Manufacture of plastic products not elsewhere classified	350.9	560.2	403.4	398.5	319.4	329.3	288.8	227.4	251.3	409.7	441.4	462.6
36	Manufacture of non-metallic mineral products except of p	386.3	416.6	441.0	363.8	338.8	335.8	244.7	199.5	229.3	346.4	442.4	483.4
3610	Manufacture of pottery, china and earthenware	469.1	726.2	608.1	414.6	334.1	468.4	167.1	143.4	200.8	311.8	339.6	333.1
3620	Manufacture of glass and glass products	403.2	591.4	423.4	379.6	327.5	318.4	281.5	231.6	244.6	417.4	532.7	731.7
3691	Manufacture of structural clay products	514.6	722.9	802.6	621.2	433.4	410.4	426.5	263.1	339.4	416.9	809.1	725.3
3692	Manufacture of cement, lime and plaster	310.8	285.0	314.5	277.5	328.4	285.6	230.1	175.5	184.9	261.2	366.3	386.4
3699	Manufacture of non-metallic mineral products n.e.c.	454.1	307.0	647.0	402.8	321.8	315.8	238.4	252.7	320.5	492.7	663.9	681.5
37	Basic metal industries	572.3	778.9	718.9	487.6	346.9	341.3	341.1	259.1	221.8	350.3	682.1	886.7
3710	Iron and stee basic industries	604.2	760.9	736.7	490.1	343.1	326.7	346.1	256.6	218.6	354.8	770.4	920.7
3720	Non-Ferrous Metal Basic Industries	486.4	850.1	663.7	478.8	359.9	399.0	325.2	267.6	234.3	335.6	469.3	743.7
38	Manufacture of fabricated metal products, machinery and	522.4	604.8	502.6	423.1	338.2	349.8	315.0	288.1	286.0	404.8	480.3	524.2
3811	Manufacture of cutlery, hand tools and general hardware	366.5	465.9	362.2	341.6	310.9	325.6	319.3	266.1	268.0	359.8	461.9	516.1
3812	Manufacture of furniture and fixtures, primarily of metal	319.1	357.5	361.3	399.5	229.6	246.0	259.3	161.8	403.7	396.8	555.4	568.8
3813	Manufacture of structural metal products	400.0	749.2	536.4	539.8	393.8	362.9	319.4	296.4	365.0	431.3	442.6	566.1
3819	Manufacture of fabricated metal products except machine	411.6	587.3	527.7	445.4	366.4	344.7	330.1	271.8	259.4	349.0	458.3	475.0


Unit Labor Cost: Manufacturing
500.0
400.0
300.0
200.0
100.0
0.0
1975
1980
1985
1990
1995
2000

TRADE AND FOREIGN EXCHANGE REGIME IN TURKEY

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After following inward oriented development strategies for fifty years Turkey switched over to outward oriented policies in 1980. The policy of further opening up the economy was pursued with the signing of the agreement, establishing the World Trade Organisation (WTO), in Marrakesh on April 15, 1994. Furthermore on March 6, 1995 it was agreed at the Association Council meeting in Brussels that Turkey would join the European Customs Union starting January 1, 1996. The purpose of this paper is to study the trade and foreign exchange regime in Turkey as it prevails over 2000. Section 1 describes the main developments in trade and foreign exchange regime of Turkey, and section 2 the market access issues for industrial commodities. Section 3 considers the market access issues for agricultural commodities. Non-tariff barriers are studied in section 4. Section 5 considers the market access issues for services. Measures affecting exports are analysed in section 6 and foreign exchange regime in section 7.

1. Main Developments

During the 1960s and 1970s, all imports into Turkey were regulated by annual import programs. Each program was published in the Official Gazette. The import program itemized commodities under the liberalization list, the quota list, and a list enumerating the commodities to be imported under bilateral trade arrangements. Importation of goods not enumerated in any of the lists was prohibited. The liberalization list was further divided into a free import list (Liberalization List I) and a restricted list (Liberalization List II). Commodities on the free import list consisted of raw materials and spare parts. Commodities on the restricted list were mainly processed and semi-processed goods and raw materials. The quota list covered commodities of which there were some domestic production or which were considered not essential by plan objectives such as consumer goods. As soon as domestic production of an import competing product began, the import was transferred from the liberalized list to the quota list. When domestic production of a commodity was sufficient to meet the domestic demand, the item was removed from the quota list. Since commodities not specified on the import lists could not be imported, complete protection was then granted to local producers.

The import regime specified above remained in force until the 1980s. In 1981, the quota list was partly phased out. In that year a large number of commodities were transferred from "Liberalization List II" to "Liberalization List I". A major reform was introduced in January 1984, when all imports were classified into three lists: the "prohibited list", "imports subject to permission" and "liberalized list". Commodities that could not be imported under any circumstances such as arms and ammunitions were specified in the

"prohibited list". "Imports subject to permission" specified the items that could be imported with prior official permission, and the "liberalized list" enumerated the commodities that could be freely imported. Liberalization of foreign trade intensified during the period 1988-1989 when nominal protection rates (NPR) were reduced substantially.

Turkey signed the agreement establishing the WTO in 1995 and joined the European CU starting January 1, 1996. According to the Customs Union Decision (CUD) all industrial goods except the "European Coal and Steel Community" (ECSC) products circulate freely between the parties as of January 1, 1996. In the case of ECSC products Turkey has signed a "Free Trade Agreement" (FTA) with EU in July 1996 as a result of which ECSC products received duty free treatment between the parties since 1999. In order to establish freedom of movement of agricultural products, Turkey according to the CUD will have to adjust its policy in such a way as to adopt the Common Agricultural Policy (CAP).

The CUD requires that Turkey implements the Community's Common Customs Tariffs (CCT) on imports of industrial goods from third countries as of January 1, 1996, adopts by the year 2001 all of the preferential trade agreements EU has concluded over time and implements on the commercial policy side measures similar to those of the Community's commercial policy. According to the stipulations of the CUD Turkey will maintain rates of protection above those specified in the CCT for certain "sensitive" products until 2001. In order to adopt EU's preferential trade agreements Turkey has signed FTA's with "European Free Trade Association" countries, Israel, and "Central and Eastern European" countries. FTA's are being discussed with Tunisia, Egypt, Morocco and Palestine. Turkey has not yet adopted the GSP (Generalized System of Preferences) scheme of EU.

During the 1960's and 1970's the import regimes discouraged exports by raising the profitability of production for domestic markets over foreign markets. To counteract these adverse effects, incentives were provided to exports. Exports were encouraged through tax rebates, preferential credits, and tariff exemptions on imported inputs and packaging materials. However, these incentives were not sufficient enough to eliminate the then prevailing bias against exports. In 1979 Turkey ran up against the limits of foreign borrowing. A structural adjustment program was introduced in 1980. By 1985 Turkey's current account deficit was a manageable $1 billion. The balance of payments turnaround during the 1980s was achieved by dramatic improvements in exports, attained largely through a consistent export promotion policy, which relied on exchange rate policy, credit policy and fiscal incentives. The government extended credit at preferential rates of interest to producers/exporters of selected products. During the first half of the 1980s, a substantial difference existed between the general lending rate and the rate of interest applied to export credits. However, that system was abrogated in 1985. After 1987, preferential credits to exporters were extended via the newly established Eximbank. Consideration of the system of export incentives during 1980's reveals that the average export subsidy rate has been relatively high during 1983 and 1984, but that it has decreased considerably during the last few years of 1980's. In 1985 Turkey joined the GATT Subsidies Code, agreeing to eliminate export subsidies by 1989. Since Turkey is a

member of the WTO it has accepted the GATT "1994 Agreement on Subsidies and Countervailing Measures" which prohibits the governments from granting subsidies contingent upon export performance. Recently Turkey has eliminated most of the export incentives. Within this context, GATT legal subsidies such as research and development subsidies and subsidies to facilitate the adaptation of plants to new environmental regulations have been introduced in 1995.

Consideration of trade data reveal that with the switch from inward oriented development strategies to outward oriented policies in 1980 exports of goods and services as a percent of GDP increased from 5.2 percent in 1980 to 23.2 percent in 1999. Similarly, the share of imports of goods and services in GDP increased from 11.9 percent in 1980 to 26.9 percent in 1999. Consideration of merchandise trade data in Table 1 on the other hand reveals that in 1999 Turkish merchandise exports has amounted to US $ 26.6 billion and merchandise imports to US $ 40.7 billion. Exports to EU-15 formed 54 percent of total exports and imports from the EU 52.6 percent of total imports. Table 1 shows that the three export commodities with the highest shares in total exports were 'clothing' with a share of 24.5 percent, 'food' with a share of 15.4 percent and 'textiles' with a share of 13.1 percent. On the other hand the three import commodities with the highest shares in total imports were 'fuels' with a share 13.2 percent, 'office machines and telecommunications equipment' with a share of 10.6 percent and 'other non-electrical machinery' with a share of 10.2 percent. Similarly the three export commodities with the highest shares in exports to EU were 'clothing' with a share of 32.3 percent, 'textiles' with a share of 13.1 percent and 'food' with a share of 13 percent, and the three commodities with the highest shares in imports from EU were 'office machines and telecommunications equipment' with a share 13.9 percent, 'other non-electrical machinery' with a share of 13.7 percent and 'automotive products' with a share of 12.2 percent. During the period 1990-1999 total exports have grown at the annual rate of 9.2 percent, and total imports at 9.4 percent. The three export commodities with the highest growth rates were 'power generating machinery' with a growth rate of 32.6 percent, 'automotive products' with a growth rate of 24.9 percent and 'other transport equipment' with a growth rate of 20.5 percent. On the other hand the three import commodities with highest growth rates were 'clothing' with a growth rate of 31.8 percent, textiles with a growth rate of 17.8 percent and 'pharmaceuticals' with a growth rate of 17.6 percent. Similarly the three export commodities to EU with the highest growth rates were 'power generating machinery' with a growth rate of 37.6 percent, 'other transport equipment' with a growth rate of 27.3 percent and 'automotive products' with a growth rate of 24.2 percent, and the three imported commodities from EU with the highest growth rates were 'clothing' with a growth rate of 31.05 percent, textiles with a growth rate of 19.5 percent and 'office machines and telecommunications equipment' with a growth rate of 18.3 percent

2. Market Access Issues for Industrial Goods

Prior to the successful conclusion of the Uruguay Round, most favoured nation (MFN) tariffs in many sectors were not legally bound, and as such they could potentially be raised. This created a lack of security in market access, and produced detrimental trade effects. A major goal of the Uruguay Round of Multilateral Trade Negotiations has been to increase the proportion of industrial tariffs that are bound, thus providing added protection to trade liberalisation commitments.[1]

To study the structure of bound tariffs in Turkey we consider the 12-digit HS bound tariff and foreign trade data. There are about 20,000 commodities. Given the information on bound tariff rates we aggregate the commodities into 22 sectors reported in Table 2. The table shows that 81.4 percent of tariff lines have been bound in the case of agricultural products, 14.9 percent in the case of mining products and 36.5 percent in the case of manufactures. The proportion of bound tariffs exhibits wide-ranging variations across different sectors of the economy. Whereas 83.3 percent of all tariff lines are bound in the case of food products the proportion goes down to 1.5 percent in the case of clothing products. The table also reports the levels of average bound tariffs by sectors. From the table it follows that the simple bound mean is 62.6 percent in the case of agricultural products and 20 percent in the case of manufactures. There is large variation between the sectors. Whereas the simple bound mean is 73 percent in the case of food products, the mean goes down to 3.3 percent in the case of pharmaceuticals. Next we consider the trade weighted average bound tariff rates calculated as

$$BoundTariff_j = \sum_{i=1}^{k} t_i^{bj} M_i^j / M^j$$

where t_i^{bj} denotes the bound tariff rate on commodity i of sector j, M_i^j the import of commodity i into sector j, M^j total imports of sector j, and k the number of commodities in sector $j (j = 1,\ldots,22)$. The table reveals that the weighted bound mean is 40.2 percent in the case of agricultural products and 9.3 percent in the case of manufactures. As before there is large variation between the sectors. Whereas the weighted bound mean is 63.6 percent in the case of food products, the mean goes down to 0 percent in the case of other products.

Tariff peaks or spikes refer to the ratio of lines for which the tariff rates exceed a reference level to the total number of lines. Two sets of shares of lines are computed using two reference levels: the first is 15 percent which is called "international peaks," and the second reference level equals three times the national mean tariff which we refer to as "national peaks." A large number of peaks implies a highly differentiated tariff structure whereas a small number of peaks points to a more uniform or "flat" tariff structure. The difference between the two methods of calculation therefore depends on the national mean bound tariff.

[1] See Safadi (1998) and Safadi and Togan (1999).

Consideration of the figures in Table 2 reveal that 27.4 percent of the 20,051 products are considered international spikes. On the other hand the proportion of national spikes is 13.6 percent. The schedule shows a highly differentiated distribution of tariffs. A large number of tariff lines are international peaks (27.4 percent of all 20,051 lines). Not surprisingly, the largest number of peaks is to be found in agriculture. The international peaks make up 78.75 percent of the lines in food sector, and the proportion goes down to 1.51 percent in the case of clothing products. Similarly the national peaks make up 63.47 percent of the lines in food sector, and the proportion goes down to 0 percent in the cases of mining, iron and steel, inorganic chemicals, pharmaceuticals, other chemicals, power generating machinery, other non-electrical machinery, and electrical machinery and apparatus. Furthermore, the table also shows the maximum bound tariff rates for each sector. The highest bound tariff rates are in food, organic chemicals and other chemicals sectors.

For studying the structure of applied tariffs we consider tariff and tariff like charges on imports in trade with EU and with third countries separately. In both cases we use the 12-digit HS data on customs duties and housing fund tax. Let t_i denote the rate of customs duty on commodity i and t_{is} the ad valorem equivalent of the mass housing fund tax rate. The relation between domestic prices and foreign prices is written as $p_i = (1 + t_i + t_{is})\, E\, p_i^{\$}$ where p_i denotes the domestic price of commodity i, $p_i^{\$}$ the foreign price of commodity i, and E the nominal exchange rate. To consider the calculation of the advalorem equivalent of the mass housing duty the following notation is used.

M_i	c.i.f. value of the import of commodity i measured in Turkish Liras;
m_i	quantity of the import of commodity i measured in units, the Dollar denominated Housing Fund tax is reported;
$FUND_1^i$	US Dollar denominated Housing Fund Tax rate on commodity i
$FUND_2^i$	ad valorem Housing Fund Tax rate on commodity i
E	exchange rate (Turkish Liras per US Dollar);

The base of the customs duty is the c.i.f. price. Therefore, this duty is calculated as $t_c^i M_i$. The Mass Housing Fund Tax levy is usually specific. For those taxes the ad valorem equivalents of the specific rates need to be calculated. Given the foreign price of the commodity, $p_j^{\$} = \dfrac{M_j}{m_j E}$, the Turkish Lira equivalent of the US Dollar denominated levy is calculated as $FUND_1^i m_i E = \left(M_i \left(FUND_1^i \,/\, p_i^{\$}\right)\right)$. On the other hand, the ad valorem

Mass Housing Fund tax rate is given by $FUND_2^i M_i$. The sum total of all the above taxes and surcharges is denoted by

$$t_i = \left(t_c^i + \left(FUND_1^i / p_i^{\$}\right) + FUND_2^i\right)$$

The average applied tariff in sector j is then calculated as

$$applied?\, tariff_j = \sum_{i=1}^{k} t_i^j M_i^j / M^j$$

where t_i^j denotes the applied tariff rate on commodity i of sector j, M_i^j the import of commodity i into sector j, M^j total imports of sector j, and k the number of commodities in sector $j(j = 1,\ldots,14)$.

Table 3 reveals that average applied tariff rates applicable on imports from EU amounts to 43.4 percent in the case of food, 3.1 percent in the case of agricultural raw materials, and 0.9 percent in the case of other chemicals. In all other sectors of the economy the average applied tariff rates are zero percent. Similar figures hold for the weighted applied rates. The weighted average tariff rate is 21.4 percent in the case of food, 0.8 percent in the case of agricultural raw materials, and 0.1 percent in the case of other chemicals. In all other sectors the average applied tariff rates are zero.

As emphasized above, Turkey has signed free trade agreements (FTA) with "European Free Trade Association" countries, Israel, and "Central and Eastern European" countries. The table shows that the tariff structure for Romania, a representative of this class of countries, is similar to that for EU. In the case of third countries the average applied tariff rates applicable on imports from non-EU countries with no FTA's with Turkey amounts to 46.4 percent in the case of food, 3.6 percent in the case of agricultural raw materials, and 5.5 percent in the case of manufactures. In manufacturing the highest rates apply in the case of clothing, iron and steel and textile products. Similar figures hold for the weighted applied rates. The weighted average tariff rate is 26.8 percent in the case of food, 18.3 percent in the case of iron and steel, 9.4 percent in the case of clothing, 8.7 percent in the case of plastics, 7.6 percent in the case of textiles, and 5.8 percent in the case of other chemicals.

Examination of the difference between applied rates and those that are bound reveals that tariff rates have been bound at much higher levels than their corresponding applied 1999 MFN rates when one considers the simple averages. On the other hand when one considers the weighted averages the figures reveal that GATT bound tariff rates are lower than the applied tariff rates in the case of trade with third countries for textiles, clothing and other products. Thus in those case there are products affected by a bound rate that is less than the MFN one.

3. Market Access Issues for Agricultural Commodities

According to the Customs Union Decision (CUD) of 1995 and the FTA with EU signed in July 1996 all industrial goods circulate freely between the parties. In order to establish freedom of movement of agricultural products, Turkey according to the CUD will have to adjust its policy in such a way as to adopt the Common Agricultural Policy (CAP). Furthermore, Articles 17-23 CUD determine the percentage of prices of processed agricultural commodities which are "agricultural" as contrasted with the percentage that is "industrial". Since "industrial" component of processed agricultural products will enter Turkish markets duty free and since protection will apply to the "agricultural" component of these commodities firms in the food industry will be faced with more competition the higher the fraction of "industrial" component is.

Consideration of the imports of agricultural commodities defined as HS 01-24, HS 41.01-41.03, HS 51.01-51.03 and HS 52.01-52.03 in Table 4 reveals that in 1998 total agricultural imports has amounted to US $ 3.5 billion and that imports of agricultural commodities from EU has formed 22.8 percent of all agricultural imports. Table 4 indicates that the three import commodities with highest shares in total agricultural imports were ‘cotton’ with a share 17.6 percent, ‘animal or vegetable oils and fats’ with a share of 14.9 percent and ‘cereals’ with a share of 13.5 percent. Similarly the three agricultural commodities with highest shares in imports from EU were ‘hides and skin’ with a share 21 percent, ‘animal or vegetable oils and fats’ with a share of 14.9 percent and ‘cotton’ with a share of 11.3 percent.

Table 5 shows the bound and applied tariff rates for major agricultural commodity groups. The table reveals that the agricultural sector is highly protected in Turkey, and that the tariff rates applied on imports from EU are not significantly different from the tariff rates applied on imports from third countries. In the case of tariffs applied on imports from EU we note that the three sectors with highest simple average tariff rates are HS 02 ‘meat and edible offal’ with a tariff rate of 117.1 percent, HS 16 ‘products made from meat, fish, crustaces’ with a tariff rate of 84 percent, and HS 20 ‘foods made of vegetable, fruits and other plants’ with a tariff rate of 58.2 percent. Similarly the three sectors with highest simple average tariff rates applied on imports from third countries are HS 02 ‘meat and edible offal’ with a tariff rate of 117.2 percent, HS 16 ‘products made from meat, fish, crustaces’ with a tariff rate of 89.9 percent, and HS 04 ‘milk and dairy products; eggs; honey’ with a tariff rate of 78.8 percent. In the case of tariffs applied on imports from EU we note that the three sectors with highest weighted average tariff rates are HS 02 ‘meat and edible offal’ with a tariff rate of 100.1 percent, HS 04 ‘milk and dairy products; eggs; honey’ with a tariff rate of 81.4 percent, and HS 16 ‘products made from meat, fish, crustaces’ with a tariff rate of 62.8 percent. Similarly the three sectors with highest weighted average tariff rates applied on imports from third countries are HS 08 ‘edible fruits; citrus fruits’ with a tariff rate of 107 percent, HS 20 ‘foods made of vegetable, fruits and other plants’ with a tariff rate of 83.4 percent, and HS 04 ‘milk and dairy products; eggs; honey’ with a tariff rate of 79.9 percent. Finally, we note that the maximum applied tariff rate is 200 percent and it is applied on certain meat and edible offal products.

Regarding market access conditions for agricultural commodities imported from EU we note that the preferential regime applied by Turkey to the imports of agricultural products originating in EU is determined by the Decision No 1/98 of the EC-Turkey Association Council of 1998. According to this Decision Turkey grants for a large number of commodities duty-free access to Turkish market up to quota limits specified in the Decision. Table 6 shows the reduction in tariff rates and the quotas for some of the agricultural commodities specified in Decision No 1/98 of the EC-Turkey Association Council. It also shows the total imports, imports from EU, the share of EU in total imports of the commodity and the relevant tariff rate when quota limits are exceeded. The table reveals that for most of the commodities considered in the table 100 percent tariff reductions will be applied on imports from EU up to the quota limits, and that for most commodities the quota limits have been exceeded. Thus "out of quota" tariff rates are in general applicable for imports from EU for the concerned commodities. Finally, note that total imports of HS 02 "meat and edible offal" has amounted to only $ 272.7 thousand whereas it was it was one of the major import items of Turkey prior to 1996. From 1996 onwards Turkey has imposed temporary import ban on live animals (dairy and beef cattle, sheep, goats and poultry) and meat (beef, sheep, goat and poultry), although Decision No 1/98 of the EC-Turkey Association Council of 1998 specifies tariff-quotas for these commodities. Although officially the reason for import prohibition is stated as protection of livestock industry from epidemic diseases, the main reason seems as stressed by Grethe (1999) to be the protection of domestic industry.

4. Non-Tariff Barriers

Following Laird (1997) the non-tariff measures (NTM) can be classified under five headings: (i) measures to control the volume of imports including prohibitions and quantitative restrictions (QR's) on imports as well as export restraint agreements, (ii) measures to control the price of imported goods including the use of reference or trigger price mechanisms, variable levies, anti-dumping duties, countervailing measures, etc., (iii) monitoring measures including price and volume investigations and surveillance through dumping and subsidisation, (iv) production and export measures including the subsidies granted to material and other inputs to the production process, and (v) technical barriers including the barriers imposed for health and safety reasons on imported commodities to ensure that they conform to the same standards as those required by law for domestically produced goods.

In Turkey the importation of some commodities such as narcotics, ozone depleting substances, colouring matters, measurement instruments not conforming to Turkish standards, arms and ammunitions, and gambling instruments are prohibited by law for a variety of reasons such as health, environment, security, public morals and fulfilment of international obligations. On the other hand importation of certain items such as telecommunications related items, some machinery, some motor vehicles, transmission apparatus, some chemicals and a number of items related to civil aircraft require prior import licenses. As stated by WTO (1998) importers of 177 items at the HS four-digit level must obtain permission from relevant authorities. Furthermore the importation of

old, used, renovated, faulty and obsolete goods is subject to permission by the Undersecreteriat of Foreign Trade.

The importation and production of pharmaceuticals, foodstuffs, and agricultural products are subject to health and sanitary controls. Imports of these commodities require a 'control certificate' issued by the Ministry of Health for pharmaceutical products, drugs, some medical products, cosmetics and detergents, and by the Ministry of Agriculture and Rural Affairs for foodstuffs, and agricultural, animal and veterinary products. In order to obtain the 'control certificate' a pro forma invoice, a health certificate, a certificate of analysis, a formula or list of contents of the product, a pedigree certificate and a radiation analysis report must be presented to the Ministry. The documents are obtained from the authorities of the exporting country. Furthermore an inspection certificate is required for the importation of goods subject to health and sanitary controls. The inspection certificate is filed with the ministry in charge.

In the case of textile and clothing products we note that the CUD included specific provisions with respect to their trade. These provisions were stated in in Article 12 CUD, supplemented by related statements by both parties. Such provisions called for Turkey's adoption of the relevant EC regulations concerning imports of textiles and clothing, in particular Council Regulation 3030/93, which provided for the bilateral agreements with supplier countries to be implemented by a set of EC quantitative limits on certain imports and for a system of import surveillance. Two Decrees issued by Turkey's Council of Ministers on 30 April 1995 laid down the basis for the alignment of Turkish commercial policy in textiles and clothing to that of the European Communities. The quotas for a variety of textile and clothing products were distributed during 1998 among 21 countries, of which 15 were WTO Members. Besides the import quotas on certain textile and clothing products Turkey has also introduced quotas for imports of some products originating from China such as footwear, tableware and kitchenware of porcelain or china, ceramic tableware or kitchenware, and toys. Finally, regarding the safeguard actions we note that Undersecretariat of Foreign Trade has the authority to propose, apply and monitor surveillance and safeguard measures, as well as to determine the quantities and/or values of quotas, in order to protect domestic industries. But Turkey has not initiated until the year 2000 any investigation nor applied any measure against WTO Members within the framework of the GATT Article XIX.

Under the legislation on anti-dumping and countervailing measures enacted on October 1, 1989, imports (i) causing a material injury to an industry, (ii) constituting a threat of material injury to an industry, (iii) causing the market impairment of an industry to be newly established in Turkey, or (iv) causing physical retardation of an industry to be established in Turkey may be filed for investigation. Turkey has been an active user of its anti-dumping legislation. In the period 1989 to 1999 Turkey has imposed definitive anti-dumping measures in XX cases, out of a total of XX investigations initiated. The measures mainly affected textile products, base metals and articles thereof. As of May 2000 there are very few commodities for which Turkey applies anti-dumping duties as shown in Table 7. By May 2000 Turkey had not initiated nor imposed any countervailing measures.

Among non-tariff barriers, technical barriers are certainly of prime importance. It is emphasized that technical barriers exist as long as EU and Turkey impose certain standards as conditions for entry, sale and use, have different legal regulations on health, safety and environmental protection, and have different procedures for testing and certification in order to ensure conformity to existing regulations or standards. Under the Community's new approach to removing technical barriers essential policy requirements for particular products are set out, while the development of technical standards conforming to the requirements has been entrusted to standardizing bodies. In 1989 the Community has put in place the "global approach to testing and certification" which is based on mutually acceptable auditing procedures. Goods manufactured pursuant to the requirements of the global approach are permitted to display a generic mark of conformity - the "CE" mark. All goods displaying that mark are entitled to circulate freely within Europe and are exempted from further conformity assessment by an importing nation. In the case of trade with Turkey mutual recognition arrangements (MRA) have to be developed to allow Turkish assessment bodies to take part in EU's conformity assessment activities. Under such an MRA, Turkey would be given authority to test and certify products against the regulatory requirement of EU, in its own territory and prior to export. In Turkey the Turkish Standards Institute (TSE) sets the standards for products. It is a non-governmental organization established in 1960. After 1993 TSE started to adopt and harmonize its standards with those of EU. By now 90 percent of EU standards have been adopted as Turkish standards (WTO (1998)). Recognition of testing procedures has been assured by mutual agreements concluded between Turkey and EU member States. Furthermore a National Quality and Accreditation Control body was established in 1995 under the chairmanship of TSE. Recently the law establishing an independent accreditation council working in accordance with EU practices has been enacted. The aim is to ensure the recognition of Turkish laboratories, testing and certification bodies by EU.

Table 8 utilises UNCTAD's Trains Database, which considers five different types of nontariff barriers (NTB) for the year 1997. Those barriers are antidumping duties, automatic licensing, authorisation to protect human health, authorisation to ensure human safety, authorisation to ensure national security and authorisation for purposes n.e.s. Although the data set is rather restrictive it can be used to obtain import coverage ratios for these NTBs. The table shows that in the case of anti-dumping duties the sectors with the highest import coverage ratios are 'plastics', 'non-ferrous metals' and 'other semi-manufactures'. In the case of automatic licensing the sector with the highest import coverage ratio is the 'fuels' sector. In the case of authorisation to protect human health the sectors with the highest import coverage ratios are 'electrical machinery and apparatus', 'inorganic chemicals' and 'ores and other minerals'. In the case of authorisation to ensure human safety the sectors with the highest import coverage ratios are 'automotive products', 'electrical machinery and apparatus' and 'other chemicals'. In the case of authorisation to ensure national security the sectors with the highest import coverage ratios are 'organic chemicals', 'power generating machinery' and 'other chemicals'. Finalls in the case of authorisation for purposes n.e.s. the sectors with the highest import coverage ratios are 'office machines and telecommunications equipment', 'automotive products' and 'electrical machinery and apparatus'.

5. Market Access Issues for Services

In Turkey services dominate the economic landscape. Table 9 shows that during 1999 the share of services in GDP has amounted to 61.7 percent and that services provided 39.1 percent of total employment in the economy. Among services the three important sectors in terms of value added are 'trade', 'other services' and 'transportation', and in terms of employment the three important service sectors are 'other services', 'trade' and 'construction'. Over the period 1990-1999 value added in services at constant prices has increased at the annual rate of 3.94 percent, and employment at the rate of 2.39 percent. The three service sectors with the highest growth rates of value added are 'trade', 'transportation' and 'other services'. Similarly the three service sectors with the highest growth rates of employment are 'trade', 'construction' and 'financing'. A more detailed analysis of the service sectors can be obtained by considering the input-output (I-O) table of 1990. The table prepared by the State Institute of Statistics distinguishes between 13 service sectors. According to these data given in Table 10 the three important sectors in terms of value added are 'wholesale and retail trade', 'road transportation', and 'public services' and that in terms of employment the three important service sectors are 'public services', 'wholesale and retail trade' and 'personal and professional services'.

Table 11 derived from the IMF Balance of Payments Yearbook reveals that service trade has grown considerably over time. During 1999 export of services amounted to $ 19.4 billion and imports of services to $ 8.5 billion. Among the services exported the most important ones are 'travel', 'other business services' and 'construction', and among the services imported 'personal, cultural and recreational', 'transportation' and 'travel' services.

As mentioned above Turkey has liberalised its foreign trade regime during the 1980's. During this period emphasis was placed on liberalisation of trade in industrial goods. Liberalisation of trade in services has not been in the agenda in Turkey until the beginning of Uruguay Round of multilateral trade negotiations. Thereafter it has been discussed mainly within the Undersecretariat of Treasury, the responsible organisation for carrying out the negotiations on services. We now turn to consideration of the commitments of Turkey first under General Agreement on Trade in Services (GATS) and thereafter within the context of Turkey-EU relations.

GATS applies to all measures taken by Members that affect trade in services defined in terms of four modes of supply. The first mode involves the cross-border (arms-length or long-distance) supply of a service from one jurisdiction to another. This mode of delivery is analogous to international trade in goods, in that a product crosses a frontier. The second mode of supply requires the movement of consumers to the jurisdiction of suppliers. Tourism is a good example of this mode, involving the movement of (mobile) tourists to (immobile) tourist facilities in another country. The third mode of supply is through the commercial presence of a supplier in the jurisdiction where the consumers are located. This is the investment mode. Finally, the fourth mode entails the movement of natural persons from one jurisdiction to another.

Differentiation by modes of supply formed the basis on which governments defined market access commitments under GATS. In this context Articles XVI, XVII and XVIII formed the core of GATS as far as specific commitments of the countries were concerned. Article XVI deals with market access, which is defined in a very specific manner. Having established that signatories will accord services and service suppliers treatment at least as favourable as that provided for in the schedules, the Article goes on to define six types of market access restrictions that will not be adopted in respect of sectors where market access commitments are undertaken unless there is a specification to the contrary in the schedule of specific commitments. In other words, disciplines on market access impediments will apply to scheduled commitments unless a reservation is registered to the contrary. This is a negative list approach nested in the overall positive list approach of the GATS schedules. The six impediments or limitations on access are defined as: a) limitations on the number of suppliers; b) limitations on the total value of service transactions or assets; c) limitations on the total number of service operations or on the total quantity of service output; d) limitations on the total number of natural persons that may be employed; e) measures which restrict or require specific types of legal entity or joint venture; and f) limitations on the participation of foreign capital. Article XVI limitations are exhaustive, in the sense that these are the only limitations on market access that Members are permitted to inscribe in their schedules. On the other hand Article XVII contains the national treatment provision of the agreement. The approach here is very similar to that of market access, with national treatment applicable only to scheduled commitments, and only then if reservations are not made to the contrary. National treatment is defined in the traditional GATT manner, as treatment no less favourable than that accorded to domestic homologues, in this case services and service suppliers. Article XVII recognises, however, that the attainment of national treatment may involve treatment that is not formally equivalent, and that formally equivalent treatment may not yield a non-discriminatory outcome either. A significant difference between national treatment in GATT and in GATS is that in the former case, national treatment is established as a principle to be applied across the board, whereas in the latter case, national treatment has been given negotiating currency -- it is something to be granted, denied or qualified, depending on the sector and signatory concerned. Finally, Article XVIII offers the possibility for signatories to negotiate additional commitments not dealt with under the market access and national treatment provisions of Article XVI and Article XVII. These commitments could apply to such matters as qualifications, standards and licensing, and would be inscribed in Members' schedules. Limited use was made of this option in the Uruguay Round negotiations. The most important aspect of Article XVIII measures is that they must express commitments favouring more open access, and not additional market barriers.

In the national schedules commitments are split into two sections. "Horizontal" commitments stipulate limitations that apply to all of the sectors included in the schedule. Any evaluation of sector specific commitments must take the horizontal entries into account. Commitments which apply to trade in services in a particular sector or sub sector are listed in the second section of the national schedules. Here the entry reads "none" in cases where there are no limitations on market access or national treatment

specific to the sector under consideration. All commitments in a schedule are bound unless otherwise specified. In cases where a Member wishes to remain free in a given sector to introduce or maintain measures inconsistent with market access or national treatment the Member enters the term "unbound".

Consideration of the horizontal commitments of Turkey reveal that Turkey has placed no restrictions on the first two modes of supply, namely cross-border supply and consumption abroad. Regarding commercial presence the commitments require that the minimum amount of foreign direct investment be $ 50,000. The investment is to be authorized by the General Directorate of Foreign Capital of the Undersecretariat of Treasury as long as it does not exceed $ 150,000 and by the Council of Ministers for investments above $ 150,000. Foreign firms are permitted to acquire real estate in Turkey pursuant to Foreign Investment legislation provided that the real estate to be acquired is related to the investor's permitted activities. But foreign controlled enterprises are prohibited from engaging in real estate trading. Turkey restricted the movement of natural persons except for the entry and temporary stay of administrative and technical personnel and service sellers. Furthermore, Turkey declared that professions like doctors, dentists, pharmacists, nurses, opticians, lawyers who practice in Turkish courts and accountants be assigned to Turkish citizens. Finally, Turkey declared that sectors such as postal services and telecommunications, railways, lotteries in cash and public utilities be closed to private investments because of public monopolies.

Table 12 shows the status of sectoral commitments made by Turkey. A close examination of the commitments reveals the following aspects: (i) Turkey has made commitments in 9 sectors out of the twelve service sectors considered under GATS. (ii) The sector "Business Services" has six sub-sectors. No commitments were made by Turkey in the cases of "real estate services", "research and development services" and "rental/leasing services without operators". (iii) "Communication services" has five sub-sectors. No commitments were made by Turkey in the cases of "audio-visual services" and "other services". (iv) "Construction and Related Engineering Services" sector has five sub-sectors. Turkey has commitments in all of them. (v) In the "distribution services" sector, Turkey does not have any commitments. (vi) In the case of "educational services" Turkey has listed commitments in four of the five possible sub-sectors. (vii) In the case of "environmental services" Turkey has listed commitments in four of the five sub-sectors. (viii) The "financial services" sector has two sub-sectors. Turkey has listed commitments in all sub-sectors. (ix) "Health Related and Social Services" sector has four sub-sectors. Turkey has commitments in one out of the four lines in the sub-sector. (x) "Tourism and Travel Services" sector has four sub-sectors. Turkey has commitments in two out of the four sub-sectors in the sector. (xi) In the case of "recreational, cultural and sporting services" sector Turkey does not have any commitments. (xii) "Transport Services" sector has nine sub-sectors. Turkey does not have commitments in the cases of "internal waterways transport services", "space transport services", "pipeline transport services" and "other transport services" sub-sectors.

Besides the commitments under GATS, Turkey is to liberalise its trade in services with EU. Although the CUD did not include any special arrangements on capital movements,

right of establishment and services, liberalisation of service sectors was mentioned for the first time in the document "European Strategy for Turkey" of March 3, 1998 prepared by the European Commission. The regular report from the Commission (1999, 2000) towards accession also emphasised this aspect. Recently, the European Council meeting in Helsinki on December 10-11, 1999 stressed that Turkey is a candidate State destined to join the EU on the basis of the same criteria as applied to other candidate States, and that Turkey, like other candidate States, will benefit from a pre-accession strategy to stimulate and support its reforms. The EC-Turkey Association Council of 2000 also emphasised the issue of liberalization of trade in services.

Messerlin (1990), when studying the effects of liberalization of services in EU, mentions that gains from liberalization of services come from three sources: lower prices for consumers, larger markets, and new comparative advantages revealed by more competitive firms. Regarding the price effects of liberalization he emphasizes that during Britain's unilateral liberalization of the early 1980's liberalized airlines, banking, and telecommunication have experienced substantial price decreases. In 1986 average British air charter fares were lower by 10 to 30 percent than the comparable scheduled fares, and in 1989 Mercury's phone tariffs were on average 30 percent lower than those of British Telecom. Emerson and others (1988) report that liberalization of services in Europe will lead to price decreases of about 10-20 percent in financial services, 10 percent in air transport, 5 percent in road transport and 3 percent in professional services. Similar results are reported in the 'Single Market Review' study of the European Commission (1997). Once the extend of price changes are determined the effects on sectoral value addeds in the economy could be determined using the effective rate of protection calculations as in Hoekman and Djankov (1997). But in the case of Turkey there are unfortunately no similar quantitative studies. Therefore we turn in the following to a descriptive analysis of the issues, concentrating only on the case of liberalization of financial services.

Currently in EU citizens and firms are free to invest their money, open accounts, take out loans, issue securities and buy insurance and securities wherever they choose within the Community, and banks, insurance companies and security firms are free to offer their services without restriction in all Community countries. An essential requirement for the achievement of this liberal regime involved freedom for Community banks, insurance companies and security firms to establish branches in all Member States, freedom to offer services throughout the Community whether or not they have established presence in each country, and freedom of capital movements. For this purpose EU harmonized basic standards for supervising financial institutions and protecting investors, depositors and consumers, mutually recognized the Supervisory Authorities' competence and the manner in which they apply those standards, and introduced the principle of home country control. The latter principle means that the branches throughout the EC of a financial institution established in one Member State will be subject to prudential supervision of the Authorities in its host country and likewise services which it provides throughout the EC will be subject to home country prudential supervision. In EU the liberalization of movements of capital has been achieved according to the EEC Treaty

progressively and it was done completely by 1988.[2] In the case of banking the liberalization was achieved with the key legislation enacted after 1977[3], in the case of insurance services during the period after 1970's [4], and in the case of securities mainly during the 1990's[5].

To study the Turkish legislative, regulatory and institutional infrastructure for the financial sector we consider first in a rather brief manner the development of the sector starting with the liberalization-cum structural adjustment program of January 1980. As emphasized by Ersel (2000) the reformers in 1980 had inherited an underdeveloped and repressed financial system dominated by banks. The reformers believed that deregulation would enhance the opportunities available to the market participants and increased competition would induce them to exploit the opportunity efficiently. As a result legal restrictions on loans and deposit rates were removed in July 1980. But the strategy was insufficient for assuring the sound and safe functioning of financial markets as revealed by the "bankers crisis" of 1981-1982. After the crisis, authorities focused more on lying the institutional foundations of the financial system by re-defining the role and the scope of the supervisory activity. During this period priority was given to the regulation of the securities markets. In order to promote and supervise the securities markets, the Capital Market Law (CML) of 1981 was enacted. In the following year the Capital Market Board (CMB) was established, and it became operational as the main regulatory body responsible both in promotion and supervision of the securities markets in 1982. CMB's authority over the secondary markets was further strengthened by a decree of 1983. The Istanbul Stock Exchange (ISE) became operational in 1986. In October 1990, the off exchange and odd-lot equity market was established, and in June 1991 the bonds and bills market was introduced. In January 1992 ISE-Settlement and Custody Company was established, which later assumed bank status. In January 1993, rights coupon and new shares markets and in February 1993 repo transaction were allowed in the ISE. In April 1993, the CMB, by regulating margin trading, allowed short selling and securities lending and borrowing among authorized ISE members.

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[2] See the Council Directive 88/361/EEC for the implementation of Article 67 of the Treaty.

[3] In the case of banking the key EU legislation consists of the 1977 First Banking Co-ordination Directive (77/780/EEC), the 1989 Second Banking Co-ordination Directive (89/646/EEC), the 1989 Solvency Ratio Directive (89/647/EEC), 1989 Own Funds Directive (89/299/EEC), the 1992 Monitoring and Control of Large Exposures of Credit Institutions Directive (92/121/EEC), the Deposit Guarantee Scheme Directive (94/19/EC) and the 1991 money laundering directive (91/308/EEC).

[4] In the case of insurance services the key EU legislation consists of 1964 reinsurance directive (64/225/EEC), the first non-life insurance directive (73/239/EEC), the first life insurance directive (79/267/EEC), the second non-life insurance directive (88/357/EEC), the second life insurance directive (90/619/EEC), the insurance accounts directive (91/674/EEC), the third non-life insurance directive (92/49/EEC), and the third life insurance directive (92/96/EEC).

[5] In the case of securities services the key EU legislation consists of 1993 investment services in the securities field directive (93/22/EEC), 1993 capital adequacy directive (93/6/EEC), 1997 investor-compensation directive (97/9/EEC), 1985 UCITS directive (85/611/EEC), 1980 listing particulars to be published for the admission of securities directive (80/390/EEC) and 1989 insider dealing directive (89/592/EEC).

In 1983 the authorities introduced the Saving Deposit Insurance Fund. The new banking law enacted in 1985 introduced provision for a minimum capital base, established a capital adequacy ratio, introduced a standard accounting system, obliged banks to use a uniform chart of accounts and made external auditing of banks obligatory. The supervisory role of the Central Bank was also extended. In 1985 the government securities market was restructured by the introduction of an auction scheme, and in the following year the Central Bank established the inter-bank money market. In 1987 the Central Bank started open market operations.

Until 1987, the regulatory framework of the insurance industry was based on the Law on Inspection and Supervision of Insurance Companies enacted in 1927. The system was operating under fixed premium rates and imposed various restrictions on insurance and reinsurance activities. A major change in the insurance industry took place after major amendments in the Law on Inspection and Supervision of Insurance Companies in 1987 which lifted the restrictions on new entries. The fixed premium rate practice was abandoned in 1990.

In 1984 residents were allowed to hold foreign currency deposits and banks were allowed to keep foreign currency abroad. In the same year banks were also allowed to determine their exchange rates within a margin around the Central Bank rate. In 1988, as a major step towards achieving market determined exchange rates, the Central Bank established the Foreign Exchange and Banknote Market. In 1989 foreign exchange operations and international capital movements were liberalized entirely. In line with the full convertibility of the Turkish lira, banks were left completely free in determining exchange rates in their operations in 1990.

The 1994 crisis led the authorities to take drastic measures in order to save the financial system from a collapse. The most controversial of these was the introduction of full state guarantee to deposits. Introduction of full guarantee to deposits was effective in ending bank rush as well as drastic shifts in deposits from private banks to state owned banks. However, the fear of renewal of banking crisis prevented the authorities to abandon this supposedly temporary measure in favor of a reasonable deposit insurance scheme. In order to deal with the moral hazard problems associated with keeping the full state guarantee on deposits and related problems a new banking law was passed by the parliament in June 1999. Until the enactment of the law the regulatory/supervisory authority for the banking system was the Undersecretariat of the Treasury, which exercised its supervisory authority through the Board of Sworn Bank Auditors, responsible for the on-site examination of banks. The Central Bank supervised the financial positions of the banks through its off-site surveillance system. Major decisions on banks by the Treasury required the approval of the State Minister in charge of the economy. But this rule subjected banking supervision to political intervention. The new banking law of June 1999 mandated the creation of a new independent Banking Regulatory and Supervisory Agency (BRSA). The BRSA takes over the bank regulation and supervision responsibilities previously fulfilled by the Treasury, Board of Sworn Auditors and Central Bank. Though this body supervision of banks were pulled out the domain of daily politics. The limits to single borrower and to related parties were

tightened, banks' exposure to non-financial participation were limited and minimum capital requirements were increased. Furthermore the new Banks Act introduced higher minimum capital requirements for new banking licenses, and urged implementation of operational policies in line with the Basle Accord.

According to the Banks Act of June 1999 the establishment of a bank, founded as a joint stock company, or opening of the first branch of a bank based in a foreign country is subject to authorization to be issued by the Council of Ministers upon a proposal to be made based on a resolution adopted by BRSA.[6] With the amendment of the Banks Act in December 1999 the BRSA was made the sole authority to grant permission for the establishment of a bank. After receiving the permission to found a bank or open a branch office in Turkey, an additional permission is required for accepting deposits or engaging in other banking operations from the BRSA. Banks are free to open additional branch offices provided they comply with the principles set by the BRSA and they have achieved the standard ratios introduced. If necessary the BRSA may subject the opening of branch offices by banks to permission. Any bank to be founded must have a capital, paid in cash, which shall not be less than $30 million. Banks established abroad that are willing to open branch offices in Turkey must have the same amount of paid in capital allocated to Turkey. Any amendments to the articles of association of a bank shall require the approval of the BRSA. In addition to the above mentioned regulations the government recently has taken steps to correct the flows concerning the weak loan loss provisioning rule and the lenient large exposure and connected lending limits. With the December amendments to the Banks Act tighter limits were imposed on both on- and off-shore balance sheet commitments to related parties and especially to companies belonging to the same group. Furthermore in June 2000 a plan for gradual reduction of deposit insurance was put into operation. Full deposit insurance in 2001 is limited to US$80,000. The deposit insurance limit will be brought into compliance with applicable EU directives by 2002.

Table 13 shows the shares of foreign banks in total Turkish assets, deposits, credits, securities portfolio and off-balance sheet items. With the relaxation of entry barriers into banking during the 1980's the number of foreign banks has increased from 4 in 1980 to 22 in 1999. But in terms of their shares in total assets, credits and deposits foreign banks remain insignificant. The figures indicate that foreign banks are less active in collecting deposits and extending loans, but play a relatively larger role in terms of offering financial services that are accounted under off-balance sheet items. The figures show that foreign banks increased their securities portfolio considerably in 1999. The table also reveals the dominance of state banks. Three of the largest five banks are still state owned, covering more than 29 percent of the sector's assets. The government uses these banks for a number of non-commercial objectives such as agricultural support, income redistribution, and industrial, urban, and physical infrastructural development. The state banks face unrecovered costs from duties carried out on behalf of the Government. The accumulated receivables of these banks are called duty losses and they have reached almost 13 percent of GNP.

[6] See the Banks Act No: 4389 ratified on June 18, 1999.

In the insurance sector Turkey has placed no limitations on national treatment, but there are restrictions on market access. The insurance or re-insurance company must be founded as a joint stock or mutual company. In order to found an insurance or reinsurance company, or open a branch of an insurance company based in a foreign country prior permission has to be received from State Ministry for economic affairs. After receiving the prior-permission, the company must obtain the operation license from the Undersecretariat of Treasury. Establishment is subject to a minimum paid-in capital requirement. Acquisition or transfer of shares representing 10, 20, 33, 50 percent or higher of the capital is subject to the authorization of Undersecretariat of Treasury. Engaging of natural persons in brokerage business or establishment of an insurance and reinsurance broker company or opening of a branch of a foreign insurance and reinsurance broker company in Turkey is subject to prior permission and obtaining operation license from Undersecretariat of Treasury. Such a firm must be founded in the form of a joint-stock or limited liability company, and must possess the required minimum paid in capital. Finally, we note from Table 14 that foreign insurance companies until recently have not been very active in the Turkish insurance sector.

In the case of securities market we note that the legal framework is based on the Capital Market Law (CML) enacted in 1981, amended in 1992 and in 1999, and on the Decree-by Law No. 91, enacted in 1983, which constitutes the regulatory base for secondary markets. The Capital Market Board (CMB), established as an independent regulator in 1982, is responsible for the regulation and supervision of primary and secondary markets. The main objective of the regulators of CMB is to maintain the operation of capital markets in a secure transparent and stable manner. To this end the CMB uses to a large extent the standards of the EU in its regulatory framework. With the Law No. 4487 of December 1999 amending the CML the CMB is made responsible for determining the regulations for foreign security firms. These regulations have not been issued yet. The legislation prevailing currently restricts to a certain extent the entry of foreign security firms into the sector. CML defines the capital market institution as intermediary institutions, investment companies, mutual funds, and other institutions. Intermediary institutions are required to obtain license from the CMB in order to be able to deal in securities transactions. CMB determines the minimum conditions for authorization and examines each application for giving license based on these requirements. In Turkey banks are required to establish separate legal entities to carry out intermediary capital market activities. Thus, EU banks can carry out intermediary activities in Turkey as long as they establish intermediary institutions according to Turkish regulations. On the other hand the current regulations require that representatives and assistant representatives of members of the Istanbul Stock Exchange (ISE) are Turkish citizens. Furthermore, foreign institutional investors are allowed to sell mutual funds. The principles of registration with the CMB and sale of the units of foreign mutual funds are regulated by the 'Communique on Principles regarding Registration with the Board and Sale of Foreign Mutual Funds' of 1998. Finally, note that foreign rating institutions recognized by CMB are allowed to engage in rating activities in Turkey without receiving permission from local authorities.

The above considerations reveal that the Turkish financial reform program was quite successful in transforming the Turkish financial system into a modern one. The objective

of the legislative and regulatory reform is to bring the regulatory and supervisory regime for the Turkish financial sector up to the level of international practice in line with EU standards. The objective has been achieved to a large extent, but as emphasized by the State Planning Organization (2000a), Varı_ and others (2000) and the World Bank (2000) more needs to be done. As mentioned above citizens and firms in EU are free to invest their money, open accounts, take out loans, issue securities and buy insurances and securities wherever they choose within the Community, and banks, insurance companies and security firms are free to offer their services without restriction in all Community countries. With Turkish accession to EU the same conditions will also apply for Turkey. Competition in Turkish financial sector will increase as Turkey recognizes the Supervisory Authorities' competence of EU Member States and introduces to its legislature the principle of home country control. Competition will lead to lower prices for consumers as well as to a larger variety of financial instruments. Some of the Turkish firms will benefit from larger markets by concentrating on activities they have comparative advantage in. Other firms may be forced to merge with foreign firms or exit from the market. Adjustment will certainly be costly. Major difficulties will be faced by Turkey with the accession to EU unless problems with the state banks will be resolved until then. But benefits to be derived from the financial liberalization will also be extremely high.

6. Measures Affecting Exports

In Turkey the exportation of certain commodities is subject to registration, and the exportation of some other commodities are prohibited for various reasons including environment, health or religious reasons. All other commodities can be exported freely. Exporters are required to register with the Exporters Association and their local Chamber of Commerce. A fee of 0.05 percent of the f.o.b. value of exports is charged as a service commission.

The commodities subject to registration include among others (i) exports against natural gas imported under the bilateral agreement with the Russian Federation, (ii) exports within the framework of special account regarding the repayment of the installations established on credit by barter, (iii) exports of goods under restriction applicable to the countries that are practicing quantitative restrictions on Turkish exports, (iv) goods subject to international sanctions and goods covered by various international arrangements, regimes, conventions and agreements, (v) chemical used in chemical weapons manufacture, (vi) unprocessed olive oil, and (vii) live sheep and cattle. On the other hand export prohibitions have been imposed on commodities such as game and wild animals, flower bulbs, ozone depleting substances, wood and wood charcoal, antiques and archaeological works, and plants of grapevine, fig, hazelnut, pistachio and olive.

Turkey does in general not apply export quotas. But Turkish exporters of certain textiles and clothing products are faced with quotas on the U.S. and Canadian markets. Turkey does not auction its quotas. Quotas have been allocated mainly based on past performance.

As mentioned above Turkey has joined the GATT Subsidies Code in 1985 and signed "1994 Agreement on Subsidies and Countervailing Measures" which prohibits the governments from granting subsidies contingent upon export performance. The CUD of 1995 also forced Turkey to change its export subsidy scheme. Recently Turkey has eliminated most of the direct export incentives. Within this context, GATT legal subsidies such as research and development subsidies and subsidies to facilitate the adaptation of plants to new environmental regulations have been introduced in 1995. Turkey is restricting export subsidies to subsidies provided to R&D activities, to environmental projects, to financial assistance to export promotion activities directed to the participation in trade fairs, to contracting of market research, to organisation of educational activities such as seminars and conferences, to export finance and to export insurance.

The various types of export subsidy schemes in use during the year 2000 can be summarised under eleven headings:

Cash subsidies: Cash subsidies are extended to a number of agricultural products and processed agricultural goods. Table 15 shows the subsidies extended to these commodities. From the table it follows that subsidies are quite substantial for various commodities, but that the applied subsidy rates cannot exceed a specified maximum rate. These rates are set between 10 and 20 percent of the value of exports. The commodities under subsidy cover 25.8 percent of total exports of the 'food' sector, and 3.5 percent of the exports of 'agricultural raw materials' sector.

Duty concessions: Exporters are exempt from a number of duty concessions such as the stamp tax. Furthermore, exporters can import duty free under the inward-processing regime scheme.

Export credits and export insurance: Preferential export credits are extended by the Turkish Eximbank, which in 1999 provided support for 26 percent of total exports. Short-term credits are provided the Turkish Eximbank through credit programs such as pre-shipment Turkish Lira (TL) export credits, small and medium scale enterprises credit facility, priority development areas credit facility, pre-shipment foreign currency export credits, foreign trade companies short term export credits, foreign trade companies foreign currency short term export credits, performance related TL export credits, performance related foreign currency export credits, short-term export credit discount program and tourism marketing credit program. Medium and longer term export credits are provided through credit programs such as Islamic Development Bank (IDB) longer term trade financing scheme, IDB import trade financing operations scheme, overseas chain stores investment credits, and letter of guarantee program for ship-building and exporting. The short term credits are extended for periods of 90-180 days, and medium and long term credits for periods of 12 months to 7 years. The interest rates on TL credits are determined by the Eximbank in accordance with developments in money markets, and the interest rates on foreign currency credits is linked to LIBOR. All of the credit schemes are in conformity with the WTO Agreement on Subsidies and Countervailing

Measures. Turkey has also adopted the OECD Consensus principles on officially supported export credits. Besides the export credits Turkish Eximbank offers different insurance policies for Turkish exporters, investors and overseas contractors against commercial and political risks.

R&D activities: According to Communique 98/10 of the Money and Credit Coordination Board R&D projects that aim to increase the productivity in export industries can be subsidised up to 50 percent of the cost of project. The subsidy can be provided over a period of maximum 3 years. Successful projects can receive additional subsidy of 10-20 percent of sales revenue derived from the project.

Projects related to technical barriers: Technical barriers exist when countries impose certain standards as conditions for entry, sale and use, have different legal regulations on health, safety and environmental protection, and have different procedures for testing and certification in order to ensure conformity to existing regulations or standards. The Community approach to removing technical barriers rests on the principle of harmonization of national legislation, where uniform standards are set for all Member countries. Under the new approach to harmonisation essential policy requirements for particular products are set out, while the development of technical standards conforming to the requirements has been entrusted to standardizing bodies. Moreover, in 1989, the Community put in place the "global approach to testing and certification" which sets principles for conformity assessment. The global approach is based on mutually acceptable auditing procedures. Goods manufactured pursuant to the requirements of the global approach are permitted to display a generic mark of conformity - the "CE" mark, and all goods displaying that mark are entitled to circulate freely within Europe and are exempted from further conformity assessment by an importing nation. The Communique 98/13 of the Money and Credit Coordination Board projects states that related projects can be subsidised up to 50 percent of the cost of project.

Trade Fairs: According to Communiques 95/7 and 96/5 of the Money and Credit Coordination Board subsidies to export promotion activities of firms directed to the participation in trade fairs abroad and international fairs within the home country can be provided up to a different percentages of the costs with different upper bounds for organisors and participating firms

Market research: According to Communiques 97/6 of the Money and Credit Coordination Board subsidies can be provided to contracting of market research by exporters. The communique specifies upper bounds to the amount of subsidy that can be provided.

Educational activities: According to Communiques 97/7 of the Money and Credit Coordination Board subsidies can be provided to organisation of educational activities such as seminars and conferences by exporters. The activity can be subsidised up to 50 percent of the cost of the project.

Employment: According to Communiques 97/8 of the Money and Credit Coordination Board subsidies can be provided to medium and small scale enterprises for their hiring of skilled personnel. The aim is to increase the productivity of the concerned exporters, and the subsidy can amount up to 70 percent of the gross wages of the person employed.

Trade marks: Recognising the importance of trademarks in international trade Turkey decided to subsidise the activities related with the promotion of trademarks and opening of branch offices in foreign countries. Communiques 98/14 of the Money and Credit Coordination Board states that the subsidies with specified upper bounds will be provided to medium and small scale enterprises for these purposes.

Intellectual property rights: Recognising the importance of industrial intellectual property rights in increasing the competitiveness of domestic producers in international markets, Turkey decided to subsidise the activities related with patents and industrial designs. Communiques 2000/3 of the Money and Credit Coordination Board states that the subsidies will be provided to cover part of the costs of obtaining patents and intellectual property rights on industrial designs.

7. Foreign Exchange Regime

Regarding the foreign exchange regime we note that the first moves towards liberalizing the foreign exchange regime took place in 1984. Residents were allowed to hold foreign currency deposits and banks were allowed to keep foreign currency abroad. In the same year banks were also allowed to determine their exchange rates within a margin around the Central Bank rate. In 1988, as a major step towards achieving market determined exchange rates, the Central Bank established the Foreign Exchange and Banknotes Market. However, the switch to market determined exchange rates was not immediate. In the interim period the Central Bank opted to share its authority with major market agents, notably banks, by allowing them to take part in the formal procedure of exchange rate determination. In 1989 foreign exchange operations and international capital movements were liberalized entirely. In line with the full convertibility of the Turkish lira, banks were left completely free in determining exchange rates in their operations in 1990. In this market the Central Bank has been intervening through open market operations to smooth out large fluctuations in real exchange rates.

The resolution number 32, which became effective on August 11, 1989, sets the detailed exchange control regulations. According to this resolution residents and non-residents of Turkey as of the year 2000 are free to send Turkish currency abroad through banks and certain private finance institutions. Banks and private finance houses must notify the Turkish Central Bank of any transfers abroad that are in excess of $ 50,000. Turkish travellers are permitted to carry up to $ 5,000 with them when travelling abroad, and non-residents are free to make payments, collections and deposits in Turkish currency.

In the case of exports we note that foreign currency or TL revenues must be brought into the country by exporters within 180 days. In cases where at least 70 percent of the foreign exchange from exports is brought into the country within 90 days, the exporter is free to

do whatever he wants with the remaining 30 percent. On the other hand in the case of imports payments can be made through the resources of the banks or private finance institutions or from foreign currency accounts which belong to the importer. Residents of Turkey are free to export, through banks and private finance institutions, foreign currency cash capital up to an amount of $ 5,000,000 in order to invest outside the country or to establish companies, participate in companies, or open branches in order to engage in commercial activities. Securities may freely enter and leave the country. Non-residents can transfer out of Turkey the income and the sale proceeds from real estate properties that they have purchased. Residents of Turkey are free to obtain cash, and non-cash credit from outside the country and to make use of such credit through banks and private finance institutions. Banks are free to issue letters of credit, guarantees and surety on behalf of residents and non-residents of Turkey in favour of non-residents. In addition banks are free to issue letters of credit, guarantees and surety denominated in foreign currency on behalf of residents and non-residents of Turkey in favour of residents for international requests for tenders conducted in Turkey.

On December 22, 1999 Turkey signed a three year Stand-By Arrangement with the IMF. The aim of the program is to free the country from the high inflation that had plagued the economy for two decades and to restore macroeconomic fundamentals. The program rests on three pillars: up-front fiscal adjustment; a strong exchange rate commitment; and a range of structural measures. The exchange rate commitment determines the exchange rate policy over the next year. The commitment to a pre-determined exchange rate devaluation, at a rate of 20 percent this year is to provide an anchor for price expectations. At the end of each quarter, the exchange rate schedule will be extended by three additional months, without changing the part of the exchange rate path already announced. There will be no band around the exchange rate path for the first 18 months following the introduction of this exchange rate regime. A gradual shift toward a more flexible exchange rate regime will begin on July 1, 2001 when a symmetric, progressively widening band about the central exchange rate path will be introduced.

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Table 1: Exports and Imports during 1999

SITC	Commodity	Exports (million US $)	Percentage Distribution	Annual Growth Rate of Exports (1990-99)	Exports to EU (million US $)	Share of Exports to EU in total Exports	Growth Rate of Exports to EU (1990-99)	Imports (million US $)	Percentage Distribution	Annual Growth Rate of Imports (1990-99)
	Agricultural Products									
0+1+4+22	Food	4084.7	15.36	4.88	1868.6	13.02	5.36	2038.2	5.01	6.52
2-22-27-28	Agricultural Raw Materials	356.8	1.34	1.27	187.4	1.31	0.47	1360.2	3.34	8.92
	Mining Products									
27+28	Ores and Other Minerals	422.8	1.59	5.03	217.8	1.52	3.97	942.4	2.32	6.05
3	Fuels	336.8	1.27	0.46	174.0	1.21	-5.80	5375.3	13.21	3.74
68	Non-ferrous metals	318.7	1.20	9.38	139.0	0.97	8.15	816.3	2.01	10.81
	Manufactures									
67	Iron and Steel	1737.3	6.53	3.76	619.6	4.32	17.26	1564.7	3.85	5.94
	Chemicals									
51	Organic Chemicals	91.7	0.35	-4.27	61.9	0.43	-0.59	1361.3	3.35	8.80
57+58	Plastics	248.3	0.93	6.24	55.5	0.39	0.23	1551.7	3.81	15.79
52	Inorganic Chemicals	211.1	0.79	6.93	123.9	0.86	11.01	402.8	0.99	3.93
54	Pharmaceuticals	126.5	0.48	8.21	38.7	0.27	20.53	1159.3	2.85	17.57
53+55+56+59	Other Chemicals	443.0	1.67	12.94	30.7	0.21	-0.81	1828.8	4.49	9.56
6-65-67-68	Other Semi-Manufactures	2054.4	7.73	12.39	945.6	6.59	12.03	2251.3	5.53	10.52
	Machinery and Transport Equipment									
71-713	Power Generating Machinery	137.5	0.52	32.56	48.9	0.34	37.59	684.6	1.68	14.12
72+73+74	Other Non-electrical Machinery	737.1	2.77	19.87	327.0	2.28	20.73	4159.2	10.22	7.43
75+76+776	Office Machines and Tel. Equipment	821.4	3.09	13.88	635.9	4.43	13.09	4324.7	10.63	12.97
77-776-7783	Electrical Machinery and Apparatus	965.9	3.63	16.81	580.6	4.05	17.95	1685.0	4.14	8.87
78-785-786+ 7132+7783	Automotive Products	1437.6	5.41	24.88	920.2	6.41	24.20	3303.3	8.12	15.94
79+785+786+7131+ 7133+7138+7139	Other Transport Equipment	937.3	3.53	20.53	431.9	3.01	27.28	1221.3	3.00	7.36
65	Textiles	3477.8	13.08	11.69	1883.2	13.12	8.63	1906.9	4.69	17.80
84	Clothing	6516.0	24.51	8.67	4626.8	32.25	6.24	208.1	0.51	31.82
8-84-86-891	Other Consumer Goods	1119.9	4.21	18.25	428.6	2.99	11.59	2511.7	6.17	12.61
9+891	**Other Products**	4.7	0.02	11.32	2.7	0.02	8.85	29.5	0.07	8.17
TOTAL		26587.2	100		14348.3	100		40686.7	100	

Source: Own calculations

Table 2: Bound Tariff Rates

SITC	Commodity	Number of Tariff Lines	Post-UR Bound Tariff Lines (%)	Post-UR Mean Bound Tariff Rates (Simple)	Maximum Bound Tariff Rate in the Commodity Group	Post-UR Mean Bound Tariff Rates (Weighted)	International Peaks (%)	National Peaks (%)
	Agricultural Products	4078	81.4	62.6	225.0	40.2	70.0	52.6
0+1+4+22	Food	3200	83.3	73.0	225.0	63.6	78.8	63.5
2-22-27-28	Agricultural Raw Materials	878	74.6	19.1	75.0	13.4	38.2	12.9
	Mining Products	892	14.9	13.0	20.0	0.6	6.7	0.0
27+28	Ores and Other Minerals	347	5.8	12.4	20.0	0.2	1.7	0.0
3	Fuels	172	14.0	10.0	20.0	0.1	3.5	0.0
68	Non-ferrous metals	373	23.9	13.9	18.4	3.9	12.9	0.0
	Manufactures	15027	36.5	20.0	102.0	9.3	17.1	3.9
67	Iron and Steel	896	23.5	20.9	30.0	9.2	20.4	0.0
	Chemicals	3516	55.8	15.3	102.0	13.2	13.9	3.7
51	Organic Chemicals	1560	56.0	14.3	102.0	10.2	18.5	0.3
57+58	Plastics	340	40.0	34.3	50.0	27.6	40.0	37.4
52	Inorganic Chemicals	586	49.8	12.4	32.4	8.3	10.4	0.0
54	Pharmaceuticals	452	83.8	3.3	15.0	4.2	0.9	0.0
53+55+56+59	Other Chemicals	578	48.8	27.6	102.0	9.2	0.0	0.0
6-65-67-68	Other Semi-Manufactures	1826	30.8	23.9	50.0	8.8	23.9	9.5
	Machinery and Transport Equipment	3412	51.1	15.1	50.0	8.3	25.2	1.4
71-713	Power Generating Machinery	237	70.9	11.4	32.0	6.0	2.5	0.0
72+73+74	Other Non-electrical Machinery	1397	51.8	12.8	25.9	6.6	25.0	0.0
75+76+776	Office Machines and Tel. Equipment	571	36.1	20.9	50.0	12.0	19.1	7.7
77-776-7783	Electrical Machinery and Apparatus	579	42.3	15.7	32.6	6.8	14.7	0.0
78-785-786+ 7132+7783	Automotive Products	301	90.0	17.4	33.6	12.7	74.1	1.3
79+785+786+7131+ 7133+7138+7139	Other Transport Equipment	327	40.1	17.8	36.8	5.6	26.9	0.3
65	Textiles	2538	14.3	28.5	92.4	5.4	10.8	6.2
84	Clothing	1058	1.5	27.4	47.4	0.5	1.5	0.6
8-84-86-891	Other Consumer Goods	1781	35.1	17.6	62.2	7.4	17.3	3.6
9+891	**Other Products**	54	3.7	35.0	35.0	0.0	3.7	3.7
TOTAL		20051	44.6	28.4	225.0	10.9	27.4	13.6

Source: Own calculations

Table 3: Nominal Protection Rates during 1999

SITC	Commodity	Applied Mean Tariffs (Simple) EU	Maximum Applied Tariff Rate EU	Applied Mean Tariffs (Weighted) EU	Applied Mean Tariffs (Simple) Romania	Maximum Applied Tariff Rate Romania	Applied Mean Tariffs (Weighted) Romania	Applied Mean Tariffs (Simple) Others	Maximum Applied Tariff Rate Others	Applied Mean Tariffs (Weighted) Others
	Agricultural Products	33.7	200.0	11.1	33.5	200.0	13.5	35.4	200.0	13.9
0+1+4+22	Food	43.4	200.0	21.4	43.9	200.0	24.6	46.4	200.0	26.8
2-22-27-28	Agricultural Raw Materials	3.1	49.0	0.8	3.2	49.0	0.4	3.6	49.0	0.9
	Mining Products	0.0	0.0	0.0	0.0	0.0	0.0	1.7	12.5	1.1
27+28	Ores and Other Minerals	0.0	0.0	0.0	0.0	0.0	0.0	0.2	12.5	0.2
3	Fuels	0.0	0.0	0.0	0.0	0.0	0.0	1.3	8.0	0.1
68	Non-ferrous metals	0.0	0.0	0.0	0.0	0.0	0.0	3.3	10.0	1.1
	Manufactures	0.0	27.0	0.0	0.2	79.9	0.4	5.5	79.9	5.9
67	Iron and Steel	0.0	0.0	0.0	0.0	0.0	0.0	8.4	30.0	18.3
	Chemicals	0.2	27.0	0.1	0.2	79.9	0.0	4.9	79.9	5.4
51	Organic Chemicals	0.0	3.0	0.0	0.1	79.9	0.0	5.8	79.9	5.7
57+58	Plastics	0.0	0.0	0.0	0.0	0.0	0.0	6.9	11.3	8.7
52	Inorganic Chemicals	0.0	0.0	0.0	0.0	0.0	0.0	4.9	9.8	6.3
54	Pharmaceuticals	0.0	0.0	0.0	0.0	0.0	0.0	0.2	6.5	0.0
53+55+56+59	Other Chemicals	0.9	27.0	0.1	1.0	29.0	0.0	5.5	29.0	5.8
6-65-67-68	Other Semi-Manufactures	0.0	0.0	0.0	0.1	11.3	0.1	3.4	18.3	3.7
	Machinery and Transport Equipment	0.0	0.0	0.0	0.2	14.3	0.9	2.7	25.0	4.0
71-713	Power Generating Machinery	0.0	0.0	0.0	0.0	0.0	0.0	2.6	6.0	3.6
72+73+74	Other Non-electrical Machinery	0.0	0.0	0.0	0.1	12.5	0.0	1.8	19.2	1.9
75+76+776	Office Machines and Tel. Equipment	0.0	0.0	0.0	0.0	0.0	0.0	3.1	14.0	3.7
77-776-7783	Electrical Machinery and Apparatus	0.0	0.0	0.0	0.0	0.0	0.0	2.4	6.9	2.2
78-785-786+ 7132+7783	Automotive Products	0.0	0.0	0.0	1.8	14.3	0.0	7.7	25.0	7.7
79+785+786+7131+ 7133+7138+7139	Other Transport Equipment	0.0	0.0	0.0	0.1	8.6	0.0	2.4	21.4	1.1
65	Textiles	0.0	0.0	0.0	0.0	0.0	0.0	8.4	13.0	7.6
84	Clothing	0.0	0.0	0.0	0.0	0.0	0.0	12.1	13.0	9.4
8-84-86-891	Other Consumer Goods	0.0	0.0	0.0	0.7	10.7	0.3	4.7	26.8	4.3
9+891	**Other Products**	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.2	0.7

Source: Own Calculations

Table 4: Imports of Agricultural Commodities during 1998

HS Code	Description	Imports (US $)	Percentage Distribution	Imports from EU (US $)	Share of Imports from EU in total Imports
I.	**Live animals and animal products**				
01	Live animals	26,090,886	0.75	15,927,016	61.04
02	Meat and edible offal	272,706	0.01	199,802	73.27
03	Fish and sea products	40,558,109	1.17	19,582,322	48.28
04	Milk and dairy products; eggs; honey	36,157,145	1.04	28,791,417	79.63
05	Other animal products	18,274,355	0.53	3,052,521	16.70
II.	**Vegetable products**				
06	Plants and floriculture products	27,103,086	0.78	25,094,812	92.59
07	Vegetable, plants, roots and tubers	89,836,799	2.60	7,160,532	7.97
08	Edible fruits; citrus fruits	63,315,983	1.83	5,437,198	8.59
09	Coffee, tea, spices	39,241,123	1.13	5,258,512	13.40
10	Cereals	465,670,562	13.45	54,205,506	11.64
11	Products of the milling industry	2,660,455	0.08	1,995,193	74.99
12	Oilseeds, various seeds/fruits; industrial plants	353,170,319	10.20	31,460,203	8.91
13	Vegetable lacquers, resins, balsams	16,103,922	0.47	14,344,189	89.07
14	Vegetable plaiting materials	2,506,139	0.07	101,413	4.05
III.	**Animal or vegetable oils and fats**				
15	Animal or vegetable oils and fats	517,092,150	14.94	113,152,194	21.88
IV.	**Foodstuffs, beverages, tobacco**				
16	Products made from meat, fish, crustacea	2,924,841	0.08	1,619,517	55.37
17	Sugar and sweets	13,192,314	0.38	10,327,412	78.28
18	Cocoa and cocoa products	69,550,495	2.01	23,954,208	34.44
19	Cereal products, wheat floor, pastries	32,749,795	0.95	31,482,511	96.13
20	Foods made of vegetable, fruits and other plants	24,817,888	0.72	17,255,735	69.53
21	Various foods	86,686,128	2.50	64,827,508	74.78
22	Alcoholic and non-alcoholic beverages	15,414,897	0.45	10,442,791	67.74
23	Residues of food industry; fodders	157,764,317	4.56	17,402,209	11.03
24	Processed tobacco and substitutes	307,379,957	8.88	29,865,617	9.72
V.	**Hides, Wool and Cotton**				
4101-4103	Hides and Skin	369,774,303	10.68	165,474,360	44.75
5101-5103	Wool and Animal Hair	75,103,219	2.17	2,155,719	2.87
5201-5203	Cotton	607,878,295	17.56	89,416,271	14.71
TOTAL		3,461,290,188	100	789,986,688	22.82

Table 5: Protection in Agriculture

	HS Code	Description	Number of Tariff Lines	Applied Mean Tariffs (Simple) EU	Maximum Applied Tariff Rate EU	Applied Mean Tariffs (Weighted) EU	Applied Mean Tariffs (Simple) Third Countries	Maximum Applied Tariff Rate Third Countries	Applied Mean Tariffs (Weighted) Third Countries
I.	**Live animals and animal products**								
	01	Live animals	103	52.4	115.0	6.7	52.4	115.0	3.4
	02	Meat and edible offal	238	117.1	200.0	100.1	117.2	200.0	72.3
	03	Fish and sea products	460	38.0	55.0	7.2	34.7	65.0	13.7
	04	Milk and dairy products; eggs; honey	224	54.6	140.0	81.4	78.8	140.0	79.9
	05	Other animal products	48	3.4	20.0	4.8	3.7	20.0	7.2
II.	**Vegetable products**								
	06	Plants and floriculture products	57	3.4	49.0	0.9	22.8	49.0	10.4
	07	Vegetable, plants, roots and tubers	185	20.2	51.0	20.0	20.3	51.0	19.0
	08	Edible fruits; citrus fruits	213	42.1	119.0	49.9	44.0	119.0	107.0
	09	Coffee, tea, spices	61	35.3	145.0	29.3	35.3	145.0	33.1
	10	Cereals	63	27.2	85.0	52.4	29.0	85.0	44.1
	11	Products of the milling industry	107	43.0	82.0	29.4	43.0	82.0	29.3
	12	Oilseeds, various seeds/fruits; industrial plants	125	17.4	35.0	15.5	18.1	35.0	19.4
	13	Vegetable lacquers, resins, balsams	47	0.0	0.0	0.0	0.5	3.8	0.7
	14	Vegetable plaiting materials	31	0.0	0.0	0.0	0.0	0.0	0.0
III.	**Animal or vegetable oils and fats**								
	15	Animal or vegetable oils and fats	230	17.8	53.4	9.7	19.4	53.4	17.0
IV.	**Foodstuffs, beverages, tobacco**								
	16	Products made from meat, fish, crustacea	147	84.0	100.0	62.8	89.9	100.0	61.7
	17	Sugar and sweets	70	33.2	142.5	30.7	38.6	142.5	52.8
	18	Cocoa and cocoa products	29	8.6	41.3	7.5	20.6	57.2	1.5
	19	Cereal products, wheat floor, pastries	76	7.3	32.5	10.4	20.6	84.3	22.6
	20	Foods made of vegetable, fruits and other plants	374	58.2	143.4	28.6	61.0	143.4	83.4
	21	Various foods	72	4.7	50.0	2.7	15.0	50.0	16.1
	22	Alcoholic and non-alcoholic beverages	193	26.2	50.0	1.9	40.5	79.9	4.4
	23	Residues of food industry; fodders	82	8.3	14.2	2.8	8.8	14.2	2.8
	24	Processed tobacco and substitutes	204	23.3	25.0	10.3	27.7	88.9	24.5
V.	**Hides, Wool and Cotton**								
	4101-4103	Hides and Skin	56	0.0	0.0	0.0	0.0	0.0	0.0
	5101-5103	Wool and Animal Hair	117	0.0	0.0	0.0	0.0	0.0	0.0
	5201-5203	Cotton	33	0.0	0.0	0.0	0.0	0.5	0.0

Table 6: Arrangements applicable to the Importation into Turkey of agricultural products originating in EU

HS	HS	Commodity	Quantity Imported TON	Quantity Imported from EU TON	Imports 1000 US Dollar	Imports from EU 1000 US Dollar	Share of Imports from EU	MFN Duty (%)	Reduction of MFN duty (%)	Tariff quota (tonnes)
	40210190000	Milk and cream in powder, granules of a fat content not exceeding 1.5 %	4,580.10	3,047.00	7,586.70	4,859.40	64.1	130	100	1,500
	40221190000	Milk and cream in powder, granules of a fat content exceeding 1.5 %	3,007.90	2,922.90	6,383.50	6,252.80	98	130	100	2,500
0405		Butter and other fats and oilsderived from milk, dairy spreads							100	3,000
	40510110000	Butter derived from milk in packages not exceeding 1 Kg and containing fat less than 8	237	177	599.5	480.1	80.1	70		
	40510190000	Other butter derived from milk containing fat less than 85%	3,824.70	3,737.30	7,661.50	7,484.50	97.7	70		
	40510900000	Butter, other	479.2	439.2	879.2	807.2	91.8	70		
	40590900000	Other fats obtained from milk	522	363.7	975.3	695.1	71.3	70		
040630		Processed cheese, not grated or powdered							100	300
	40630310000	Processed cheese, not grated or powdered (fat content less than 48 %)	96.8	96.8	392.1	392.1	100	83		
	40630390000	Processed cheese, not grated or powdered (fat content more than 48 %)	137.2	137.2	386.7	386.7	100	83		
040690		Other cheese							100	2,000
	40690130000	Emmenthaler cheese	51.8	51.8	287.8	287.7	100	83		
	40690210000	Cheddar cheese	1,138.90	363	1,948.20	633.6	32.5	47.5		
	40690330012	Other white cheese	311.4	311.4	631.8	631.8	100	50		
	60110901000	Flower bulbs	272.3	272.3	920.2	920.2	100	7	100	200
060290		Live plant, other							100	3,000
	60290100000	Mushroom spawn	531.7	505	903.4	865.3	95.8	4		
	60290450011	Cuttings of other trees	285.9	188.9	2,084.00	1,421.60	68.2	4		
	60290450012	Seedlings of other trees	27.7	27.3	280.1	275.6	98.4	4		
	60290490000	Cuttings and buds of other trees	18,803.30	18,355.90	12,110.90	11,948.00	98.7	4		
	60290510000	Cuttings of relatively old plants grown outside	275.7	274	280.6	279.5	99.6	4		
	60290590000	Seedlings of cuttings of plants grown outside	4,014.90	3,829.90	4,023.30	3,851.30	95.7	4		
	60290700011	Cuttings of indoor plants	392.4	369.6	681.9	626.9	91.9	4		
	60290990000	Other live plants	1,198.50	1,037.00	2,506.60	2,263.10	90.3	22		
	70110000000	Potato seed	12,270.10	9,090.70	5,679.60	4,635.80	81.6	22	100	5,000
	80810500000	Apples, Granny smith	2,626.80	540.5	1,117.80	232.3	20.8	63.6	100	1,000
	90230000000	Black tea (fermented)	327.2	164.6	694.5	481.5	69.3	145	max 45%	200
	100190990011	Other wheat mainly for bread	1,682,432.60	163,021.80	225,950.30	25,092.80	11.1	55	100	200,000
100300		Barley (white)							100	46,000
	100300900011	Barley (white)	65,423.30	65,423.30	7,303.20	7,303.20	100	85		
	100300900019	Other barley	126,382.90	34,767.00	10,593.90	3,302.50	31.2	85		
	100590000000	Other maize	765,182.70	11,431.70	90,181.90	1,312.10	1.5	60	100	52,000
100630		Semi milled or wholly milled rice							100	28,000
	100630940000	Semi-milled or wholly milled rice (medium size)	179,918.70	10,644.90	61,014.60	3,982.90	6.5	35		
	100630960000	Semi-milled or wholly milled rice (lengthe > 2, width < 3)	25,310.70	23,412.90	12,421.00	11,698.30	94.2	35		
	120720900000	Cotton seeds	114,621.10	6,955.40	18,298.10	1,222.00	6.7	4	100	1,500
	120911000000	Beet seed, sugar beet seed	328.1	328.1	6,074.10	6,074.10	100	3.9	100	300
1209		Seeds, fruit ansd spores for sowing except 12091100							100	1,000
	120923150000	Seeds of forage plants, other than beet seed - fesume seed	350.9	330.9	637.1	588	92.3	21		
	120923800019	Seeds of forage plants, other than beet seed -other	387.2	315.4	676.5	557.1	82.4	21		
	120924000000	Seeds of forage plants, other than beet seed -Kentucky blue	213.3	213.3	506.6	506.6	100	21		
	120925900000	Seeds of forage plants, other than beet seed -English rye grass	635.5	634.9	1,089.80	1,088.70	99.9	21		
	120929800019	Seeds of forage plants, other than beet seed -other	409.9	289	1,137.30	758.8	66.7	21		
	120930000000	Seeds of herbaceous plants cultivated principally for flowers	1.9	1.4	533.6	372.6	69.8	6		
	120991900012	Tomatoe seed	34.3	15.6	17,118.60	4,313.10	25.2	21		
	120991900013	Cucumber seed	22.9	10.6	3,328.20	2,507.60	75.3	21		
	120991900014	Onion seed	22.7	11.9	775.4	424.1	54.7	21		
	120991900015	Carrot seed	12.9	12.8	465.8	461.8	99.2	21		
	120991900019	Other vegetable seed	83.7	51.5	4,657.80	3,448.90	74	21		
	120999999012	Watermelon seed	66.4	33.2	3,012.60	1,763.20	58.5	21		
	120999999013	Melon seed	5.8	2.7	1,056.40	243.8	23.1	21		
1502		Fats of bovine animals, sheep or goats							100	3,000
	150200109000	Other fats of bovine animals, sheep or goat for the use of industry	117,983.00	1,957.60	63,158.60	1,031.20	1.6	4		
	150200900011	Other bovine fats	49,847.80	41,562.70	8,595.30	3,697.90	43	4		
150710		Soya oil							100	60,000
	150710100000	Soya bean crude oil, technical use	14,913.60	11,510.10	10,145.50	7,906.80	77.9	12		
	150710900000	Soya bean crude oil, other use	137,901.10	103,415.10	90,863.40	67,317.10	74.1	12		
	151211910000	Sunflower seed or safflower crude oil	156,673.60	12,392.40	102,695.80	9,437.50	9.2	38	100	18,000
	151410900011	Rape and colza or mustard crude oil	13,239.20	12,303.20	8,788.30	8,187.40	93.2	12	100	10,000
	170199100011	Cane or beet sugar and chemically pure sacrose, in solid form, other than raw sugar	4,959.70	3,292.70	1,557.70	1,032.40	66.3	142.5	20%	80,000
	200290910000	Tomatoes prepared, other	2,309.70	351.6	2,027.70	315.4	15.6	143.4	100	1,500
	220900990000	Vinegar and substitutes obtained from acetic acid	1,280.70	1,280.40	443.7	443.6	100	44.5	100	2,500

Table 7: Anti-dumping measures in force, May 2000

Product	Country	Official Gazette Date	Duty
Untwisted other yarn out of polyester (5402.43)	South Korea	30/11/1999	0-21.2%
Polyester synthetic staple fibres (not processed) (5503.20.00.00.00)	Belarus	29/05/1998	19%
	South Korea	13/03/2000	11.9-24.6%
	Indonesia		6.2-37.4%
Steel billets, rolled or obtained by continuous casting			
(7207.11.16.00.13)	Russia	6/5/95	US$24/tonne
(7207.11.14.00.13)	Ukraine		US$17/tonne
(7207.20.15.00.13)	Moldava		US$29/tonne
(7207.11.14.00.14)			
(7207.11.16.00.14)			
(7207.20.15.00.14)			
Cast fittings: - other (7307.19)	Brazil	27/04/2000	50%
	China		95%
Pocket lighters, gasfilled, refillable (9613.20.90.00.00)	China	29/05/1998	$ 0.12/unit

Source: Undersecretariat for Foreign Trade

Table 8: Import Coverage Ratios of NTBs

SITC	Commodity	Antidumping Duties	Automatic Licensing	Authorization to Protect Human Health	Authorization to ensure human Safety	Authorization to ensure national Security	Authorization for purposes n.e.s.
	Agricultural Products						
0+1+4+22	Food	0.00	0.00	0.00	0.00	0.00	0.00
2-22-27-28	Agricultural Raw Materials	2.41	0.00	0.00	0.00	0.00	0.00
	Mining Products						
27+28	Ores and Other Minerals	0.00	0.00	0.82	0.00	0.00	0.00
3	Fuels	0.00	9.60	0.00	0.00	0.00	0.00
	Manufactures						
68	Non-ferrous metals	13.33	0.00	0.00	0.00	0.00	0.00
67	Iron and Steel	0.00	0.00	0.00	0.00	0.03	0.00
	Chemicals						
51	Organic Chemicals	0.45	0.59	0.00	0.00	5.65	0.00
57+58	Plastics	15.91	0.00	0.00	0.00	0.00	0.00
52	Inorganic Chemicals	0.00	0.00	1.12	1.12	0.00	0.00
54	Pharmaceuticals	0.00	0.00	0.00	0.00	0.00	0.00
53+55+56+59	Other Chemicals	0.00	0.50	0.00	2.86	2.86	0.00
6-65-67-68	Other Semi-Manufactures	7.07	0.00	0.00	0.24	0.22	0.22
	Machinery and Transport Equipment						
71-713	Power Generating Machinery	0.00	0.00	0.00	0.00	3.57	9.82
72+73+74	Other Non-electrical Machinery	0.21	0.00	0.01	0.64	0.15	11.91
75+76+776	Office Machines and Tel. Equipment	0.00	0.00	0.00	0.00	1.37	65.92
77-776-7783	Electrical Machinery and Apparatus	0.91	0.00	4.27	4.27	0.09	18.30
78-785-786+ 7132+7783	Automotive Products	0.00	0.00	0.00	30.77	0.01	28.80
79+785+786+7131+ 7133+7138+7139	Other Transport Equipment	0.00	0.00	0.00	0.00	2.07	1.50
65	Textiles	0.00	0.00	0.00	0.00	0.00	0.00
84	Clothing	0.00	0.00	0.00	0.00	0.00	0.00
8-84-86-891	Other Consumer Goods	1.17	0.00	0.00	0.00	2.32	3.02
9+891	**Other Products**	0.00	0.00	0.00	30.67	0.00	0.00

Source: Own calculations

Table 9: Value Added and Employment

Value Added	Value Added 1999 (Trillion TL)	Share in GDP (%)	Growth Rate of real VA 1990-1999	Employment ('000)	Share in Employment (%)	Growth Rate of Employment 1990-1999
Agriculture	11,634.13	15.0	1.23	10,096	45.8	0.62
Industry	17,973.87	23.2	4.76	3,329	15.1	1.64
Services	47,766.81	61.7	3.94	8,626	39.1	2.39
Construction	4,340.09	5.6	1.37	1,192	5.4	2.47
Trade	14,780.09	19.1	4.89	2,944	13.4	3.39
Transportation	10,711.47	13.8	4.82	863	3.9	1.00
Financing	4,772.95	6.2	1.35	520	2.4	2.14
Other Services	13,162.21	17.0	3.35	3,107	14.1	1.91
TOTAL	77,374.80	100	3.76	22,051	100	1.47

Source: State Planning Organization

Table 10: Value added and employment in services

	Value Added Million TL 1990	Share of Sectoral VA (%)	Employment ('000)	Share of Sectoral Employmen (%)
Housing Construction	16,936,615	7.54	664.6	9.60
Other Construction	7,209,577	3.21	217.6	3.14
Wholesale and Retail Trade	63,896,748	28.45	1598.3	23.08
Hotels, Restaurants	9,198,382	4.09	532.8	7.69
Rail Transportation	775,041	0.35	104.2	1.50
Road Transportation	45,420,926	20.22	486.4	7.02
Sea Transportation	4,463,399	1.99	68.8	0.99
Air Transportation	2,018,022	0.90	35.4	0.51
Communication	3,683,317	1.64	110.2	1.59
Banking and Insurance	10,024,476	4.46	400.5	5.78
Personal and Professional Services	16,221,231	7.22	862.4	12.46
Public Services	32,804,588	14.60	1820.9	26.30
Dwellings	11,972,840	5.33	22	0.32
Total Services	224,625,160	100	6,924	100

Source: State Institute of Statistics and Ozhan (1994)

Table 11: Trade in Services (millions of U.S. dollars)

	1994	1995	1996	1997
Transportation Services				
Credit	1,221	1,712	1,756	2,193
Debit	-953	-1,412	-1,745	-1,881
Travel				
Credit	4,321	4,957	5,650	7,002
Debit	-866	-911	-1,265	-1,716
Construction				
Credit	1,263	1,863	1,967	2,455
Debit	-7	-4	-22	-160
Insurance				
Credit	9	20	24	43
Debit	-34	-42	-30	-41
Financial				
Credit	123	201	280	347
Debit	-288	-350	-395	-505
Other Business Services				
Credit	2,152	3,440	2,269	4,928
Debit	-500	-557	-715	-984
Personel, cultural, and recreational				
Credit	1,634	2,282	949	2,225
Debit	-770	-1,378	-1,860	-2,798
Government, n.i.e.				
Credit	78	131	156	180
Debit	-364	-370	-394	-422
TOTAL				
Credit	10,801	14,606	13,051	19,373
Debit	-3,782	-5,024	-6,426	-8,507

Source: IMF 'Balance of Payments Statistics 1998'

Table 12: Specific Commitments of Turkey by Sectors

BUSINESS SERVICES	
Professional Services	x
Computer and Related Services	x
Research and Development Services	
Real Estate Services	
Rental/Leasing Services without Operators	
Other Business Services	x
COMMUNICATION SERVICES	
Postal Services	x
Courier Services	x
Telecommunication Services	x
Audiovisual Services	
Other	
CONSTRUCTION AND REL. ENG. SERVICES	
General Construction Work for Buildings	x
General Construction Work for Civil Engineering	x
Installation and Assembly Work	x
Building Completion and Finishing Work	x
Other	x
DISTRIBUTION SERVICES	
Commission agents' services	
Wholesale Trade Services	
Retailing Services	
Franchising	
Other	
EDUCATIONAL SERVICES	
Primary Education services	x
Secondary Education Services	x
Higher Education Services	x
Adult Education	
Other Education Services	x
ENVIRONMENTAL SERVICES	
Sewage Services	x
Refuse Disposal Services	x
Sanitation and similar Services	x
Other	x
FINANCIAL SERVICES	
Insurance and Insurance Related Services	x
Banking and other Financial Services	x
HEALTH RELATED AND SOCIAL SERVICES	
Hospital Services	x
Other Human Health Services	
Social Services	
Other	
TOURISM AND TRAVEL SERVICES	
Hotels and Restaurants	x
Travel Agencies and Tour Operator Services	x
Tourist Guide Services	
Other	
RECREATIONAL, CULT. AND SP. SERVICES	
Entertainment Services	
News Agency Services	
Libraries, Archives and Museums	
Sporting and other Recreational Services	
Other	
TRANSPORT SERVICES	
Maritime Transport Services	x
Internal Waterways Transport	
Air Transport Services	
Space Transport	
Rail Transport Services	x
Road Transport Services	x
Pipeline Transport	
Services Auxiliary to all Modes of Transport	x
Other Transport Services	
OTHER SERVICES NOT INCLUDED ELSEWHERE	

Table 13: Share in Total Assets, Deposits, Credits and Securities Portfolio

	1990	1995	1999
Share in Total Assets (percent)			
State Owned Banks	49.26	43.38	38.37
State Owned Commercial Banks	42.61	37.72	34.92
State Owned Dev. & Inv. Banks	6.65	5.66	3.45
Private Banks	48.22	53.74	55.98
Private Commercial Banks	45.81	52.03	55.09
Private Investment Banks	2.41	1.71	0.89
Foreign Banks	2.52	2.88	5.65
Foreign Commercial Banks	2.52	2.70	5.22
Foreign Investment Banks	0.21	0.20	0.43
Share in Total Deposits (percent)			
State Owned Banks	46.73	43.28	39.79
State Owned Commercial Banks	46.73	43.28	39.79
State Owned Dev. & Inv. Banks	0.00	0.00	0.00
Private Banks	51.32	54.00	57.49
Private Commercial Banks	51.32	54.00	57.49
Private Investment Banks	0.00	0.00	0.00
Foreign Banks	1.95	2.72	2.72
Foreign Commercial Banks	1.95	2.72	2.72
Foreign Investment Banks	0.00	0.00	0.00
Share in Total Credits (percent)			
State Owned Banks	52.51	48.61	37.30
State Owned Commercial Banks	42.64	39.24	28.20
State Owned Dev. & Inv. Banks	9.87	9.37	9.10
Private Banks	44.97	49.45	59.73
Private Commercial Banks	42.67	47.83	58.54
Private Investment Banks	2.30	1.62	1.19
Foreign Banks	2.52	1.94	2.97
Foreign Commercial Banks	2.52	1.90	2.86
Foreign Investment Banks	0.23	0.04	0.11
Share in Securities Portfolio (percent)			
State Owned Banks	49.29	38.36	22.07
State Owned Commercial Banks	48.81	36.68	21.81
State Owned Dev. & Inv. Banks	0.48	1.68	0.26
Private Banks	47.41	57.92	68.38
Private Commercial Banks	45.52	56.57	60.25
Private Investment Banks	1.89	1.34	0.83
Foreign Banks	3.30	3.72	9.55
Foreign Commercial Banks	3.14	3.49	9.52
Foreign Investment Banks	0.16	0.23	0.03
Share in Total Off-Balance Sheet Items (percent)			
State Owned Banks	31.47	20.62	11.88
State Owned Commercial Banks	27.91	18.64	10.93
State Owned Dev. & Inv. Banks	3.57	1.99	0.95
Private Banks	62.19	70.68	74.97
Private Commercial Banks	61.19	69.06	58.98
Private Investment Banks	1.00	1.62	0.50
Foreign Banks	6.34	8.70	13.15
Foreign Commercial Banks	6.15	8.20	12.66
Foreign Investment Banks	0.20	0.50	0.49

Source: Turkish Bankers Association (2000)

Table 14: Some Important Figures of Insurance Companies in Turkey during 1999

	Turkish (million $)	Share (%)	Foreign (million $)	Share (%)	Total (million $)
Direct Premiums	1,710.6	93.0	128.6	7.0	1,839.2
Premium receivables	570.4	94.2	35.0	5.8	605.5
Securities portfolio	1,258.8	93.8	82.5	6.2	1,341.3
Participation	112.1	99.8	0.2	0.2	112.3
Fixed Assets	261.7	96.4	9.8	3.6	271.4
Assets	3,374.4	94.1	213.3	5.9	3,587.7
Profit	256.7	94.1	16.1	5.9	272.8
Loss	23.2	69.5	10.2	30.5	33.4
Net Worth	467.7	93.5	32.4	6.5	500.1

Source: Undersecretariat of Treasury "Main Indicators of the Turkish Financial System" December 1999

Table 15: Cash subsidies

HS	Commodity	Cash Subsidies	Maximum Subsidy Rate	Exports in 1999 ($1000)
0207	Meat and edible offal of the paultry (excluding 02071391, 02071399, 02071491, 02072691, 02072699, 020734, 02073591, 02072791, 02072799, 02073599, 02073681, 02073685, 02073689)	$199/tonne	20%	6,680
040700	Birds eggs, in shell, fresh, preserved or cooked	$ 7/1000units	10%	16,283
060310	Fresh cut flowers and flower buds of a kind suitable for bouquetts	$ 285/tonne	20%	11,886
070190	Potatoes	$ 20/tonne	15%	14,480
070310190011	Onions	$ 17/tonne	15%	19,460
0710	vegetables (uncooked or cooked by steaming or boling in water) (excluding 071010)	$ 106/tonne	20%	20,347
0712	Dried vegetables, whole, cut, sliced, broken or in powder	$ 370/tonne	10%	16,774
0811	Fruits and nuts, uncooked or cooked by steaming or boiling	$ 92/tonne	20%	29,459
1509	Olive oil (including 151620910014 and 151620980011)	$ 200/tonne	10%	166,335
1604	Prepared or preserved fish	$ 210/tonne	10%	29,079
1806	Chocolate and other food preperations containing cocoa	$ 110/tonne	10%	59,217
190530	Sweet biscuits; waffles (including 19059040, 19059045)	$ 110/tonne	10%	75,684
1902	Pasta	$ 73/tonne	10%	9,984
2001, 2002, 2003 2004, 2005, 2006 2008	Vegetables, fruits, nuts and other edible parts of plants, tomatoes prepared or preserved, mushrooms, truffles, other vegetables prepared or preserved. Fruits, nuts, and other edible parts of plants (excluding 200811, 20081911, 20081913, 200819190014, 200819190039, 200819190049, 20081951, 20081959, 20081993, 20081999, 200819950014, 200819950039, 200819950049)	$ 55/tonne	20%	488,334
2007	Jams, fruitjellies, marmelades, fruit or net pureee	$ 53/tonne	20%	39,674
2009	Fruit juices (excluding 200990)	$ 168/tonne	20%	68,343

Source: Web page of the Undersecretariat of Foreign Trade