EMIGRANT TURKISH WORKERS—A FRAMEWORK FOR ANALYSIS

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Introduction :

Exportation of labor has now become a major aspect of Turkish manpower and financial planning. Persistent labor shortages in certain developed nations, notably West Germany, have operated as a vent for surplus Turkish labor; moreover, workers' remittances have become the largest single foreign exchange earner of Turkey[1]. However, it appears that thus far major Turkish interests have been in fostering labor exportation as a means of relieving domestic unemployment and generating foreign exchange earnings. Only recently has Turkey given serious consideration to temporary labor emigration as an op-

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1 The West German labor shortage phenomenon is now well-known and well documented, see [6] and [8], and therefore will not be elaborated further. Since this article is primarily intended to analyze past developments, neither prospects of future labor demand nor implementation of the Turkish-European Economic Community protocol will be investigated. The impact of workers' remittances upon the total foreign exchange earning capacity may easily be seen with reference to total exports :

	($ Millions)				
	1968	1968	1970	1971	(Jan-Nov)
Major Exports ;					
Cotton	139.1	113.6	173.1	133.5	
Tobacco	94.8	81.5	78.5	62.2	
Nuts	84.0	115.2	95.6	78.5	
Total Exports (1)	496.4	536.8	588.5	542.8	
Total Workers' Remittances (2)	107.3	140.6	273.0	424.8	
(2) / (1) = %	21.6	26.2	46.4	78.3	

portunity to improve the quality of her labor force by providing preemigration training and retraining and granting post-emigration incentives to induce use of the skills and experience acquired abroad.

In order to provide a contribution to policy formulation in this field, this article attempts to summarize the socio-economic characteristics of Turkish workers in West Germany as compared to other foreign laborers in that country. West Germany emerges as the centrum of analysis not only because over 90 % of the emigrant Turks go there, but also because Germany has undertaken the most comprehensive statistical reporting of foreign workers [3]. Finally, since workers' remittances remain critical to Turkey's foreign exchange earning capacity, at least in the near term, an analysis of remittances from West Germany is presented.

Socio-Economic Characteristics of Foreign Workers in Germany :

The German economic boom of the late 1950's and early 60's precipitated a massive influx of foreign workers. From 1959 to 1969, the number of foreign workers in Germany rose from 166,829 to 1,115,758, an annual rate of growth of 12.5 percent. The history of Turkey's participation in this labor importation phenomenon is beyond the scope of this paper and is well documented elsewhere [2]; yet, certain trends should be emphasized. Since 1963, the number of Turks employed in Germany has increased both absolutely and relatively (see Table 1). In fact, from 1963 to 1969, while the total number of foreign laborers grew at an average annual rate of 11.1 %, the number of Turks rose 13.6 % annually; the number of Yugoslavs rose at 13.2 %; Greeks increased at 6.9 %, and the number of Italians and Spaniards rose only 2.9 % and 2.2 % respectively. Thus Turkey rose from the fifth largest supplier in 1963 to second in 1968.

The number of Turks going to Germany through official channels accounts for an increasing proportion of total foreign workers and the Turkish share of total official vacancies allotted to her has likewise risen. By 1968, Turkish workers accounted for approximately 40 %

[2] See, among others, [6] and [8].

of all official arrivals and 38 % of all official vacancies to be filled[3]. Moreover, more than 60,000 Turks are working in Germany without having gone through official channels. Consequently, the socio-economic characteristics of emigrant Turkish workers should be of concern to both Turkish and German manpower planners.

Historical analysis of German data reveals that, compared to other nationals, (1) Turkish workers appear to exhibit a greater propensity to migrate to Germany at an earlier age (25-35 year age bracket), without their spouses, and reside in housing provided by the employing firms, (2) contrary to widespread popular belief, Turkish males do not tend to take German wives more, on the average, than other nationals, (3) Turks and Yugoslavs have a tendency to remain and/or to contract to remain in Germany for a shorter period of time than other principal migrating nationals, and (4) both Turkish males and females, although less so for females, are competitive with other nationals in language proficiency.

Although Turkey remains a major unskilled labor supplier, the skill qualifications – in terms of German standards – of emigrant Turkish workers, again both males and females are similar to other nationals, (see Table 2). In the early 1960's, foreign labor in Germany tended to be concentrated in certain sectors of the economy, especially metals and heavy industry, manufacturing and construction. Although still heavily weighted in these sectors, for most supplying nations there has recently been a shift out of construction into trade, transportation and services. Proportionately, the Turks do not appear to have shared in this shift in favor of the service sectors of the economy and they

3. Data for 1966 to 1969 are as follows ;

	Official Vacancies			Official Arrivals		
	Number		Turkish as a	Number (000)		Turkish As
Year	Turkish	Total	% of Total	Turkish	Total	% of Total
1966	7,502	26,742	28.1	32.5	106.7	30.5
1967	2,915	8,552	34.1	7.2	17.2	41.9
1968	17,443	46,569	37.5	41.5	104.1	39.8
1969	24,767	105,440	23.5	—	—	—

Source : [3], *1969*, *p.* [*130*].

remain more heavily concentrated in the mining and energy, metals and construction sectors (Table 3).

The implications as to future skill levels of foreign workers demanded by German officials remain a critical variable in Turkish manpower planning. Although estimates of future demand levels by skill categories are beyond the scope of this paper, it is noteworthy that German officials have repeatedly statedly stated that future demands will be for more and more skilled workers. Thus, if Turkey is to commit herself ambitiously to continue to export labor, as policy statements indicate, she must be prepared to increasingly relinquish more and more skilled labor.

Emigrant Turkish Workers' Remittances: A Framework for Analysis:

Among the major labor supplying nations, Turkey has experienced the most rapid increase in numbers of workers in Germany; she has also benefited from the most rapid increase in total workers' remittances. From 1963 to 1969, total official Turkish workers' remittances grew at an annual rate of 13.8 percent (Table 4); however, over the same period, remittances per worker of Turks rose by only 1.3 percent yearly, while the average of all foreigners rose by 4.6 percent annually. This statistic may be misleading however since, at least as far as the Turks are concerned, a stable pattern of asset accumulation and remittances appears to be occurring. It must be emphasized that, due to the lack of relevant data, the following analysis remains hypothetical. In fact, if Turkish manpower and financial planners are to integrate this labor migration phenomenon into the overall economic development planning for Turkey, a major effort in data collection and analysis is necessary. It is hoped that the analysis below will contribute to identifying the relevant variables and relationships to be investigated.

Turks appear to allocate their earnings abroad for four major purposes, namely, (1) to maintain a certain standard of living for their dependents/family members remaining in Turkey, (2) to maintain a certain standard of living for the worker and his/her dependents residing in Germany, (3) to accumulate a certain level of assets to bring back to Turkey upon return, and (4) to remit the residual to Turkey for savings and investment purposes. Each of these purposes are described more fully below:

Standard of Living Maintenance :

In Turkey: Since over 54 percent of the married emigrant workers do not take their spouses or children to Germany, earnings in the early period of employment in Germany are devoted to establishing and maintaining a minimum standard of living for their dependents at home. The same standard of living purpose may apply to other members of the extended family, especially elderly parents, and this process may therefore be applicable to unmarried emigrant workers. The amount of earnings devoted to standard of living maintenance is presumed to be a function of the domestic (Turkish) living standards, especially for rural areas and migrants. In other words, this activity is dependent on the size of the worker's family and the standard of living its members enjoy.

In Germany : Analogous to the standard of living sought for family members in Turkey above, emigrant workers attempt to achieve a desired standard of living during their stay in Germany. The amount of earning required for this purpose depends on the number of dependents residing in Germany, the length of stay the worker intends to spend in Germany, and, as will be articulated below, the amount of assets he expects to accumulate.

Asset Accumulation :

In Germany : Asset accumulation is by far the most compelling factor for Turks desiring to go abroad[4]; thus, it is largely to this end that Turks devote their earnings. This process obviously varies from worker to worker, depending on earning capacity and desired asset balance, but over 60 percent of the Turks returning from Germany bring back between 25,000 and 80,000 Turkish lira worth of assets. The composition of the imported assets is not well documented but is generally believed to be in the form of foreign exchange (which is converted to Turkish Lira) and in goods such as automobiles, consumer durables and tools, i.e., a category included in the Turkish import

[4] In this analysis, we assume that emigrant workers have or could obtain employment in Turkey, even if disguised unemployment in the agriculture or service sectors; therefore, the determination to migrate is not a function of employment opportunities, rather, as eloborated later, it is a function of the real wage differential between Turkey and Germany.

statistics labelled "imports with waivers." Asset accumulation in Germany represents the worker's fund to be used directly to establish his own business or to sell and the proceeds to be used for investment or consumption purposes. Consequently, after standard of living maintenance, asset accumulation in Germany becomes the major objective in the distribution of earnings. Moreover, the desired asset accumulation balance, at least partially, determines the standard of living in Germany, especially if the worker intends to emigrate for only a short period of time.

In Turkey : The distribution of earnings for savings and investment purposes in Turkey during the period in which the worker is abroad appears to be a residual. The amount of earnings devoted to savings and investment in Turkey may therefore be expressed as dependent on the desired asset balance in Germany and standard of living maintenance. A complicating factor may arise in that "black market" foreign exchange differentials on the Turkish Lira may induce workers to devote part, if not all, of the savings and investment funds for speculative purposes so that the official transfer data do not represent an unbiased statement of the emigrant workers transactions in foreign exchange.

Schematically, we can present the above in terms of a country and purpose matrix :

	Country	
Purpose	Germany	Turkey
Standard of Living	S_1	S_2
Asset Accumulation	A_1	A_2

where, S_1 = the standard of living maintenance purpose in Germany, A_1 = asset accumulation in Germany, and S_2 and A_2 are the same factors in Turkey. This schema is also useful to understand more clearly the actual remittance process since remittances can be represented by S_2 and A_2. Finaly, as a first step in deciding the relevant variables

to be studied, the following model, which summarizes the hypothesized relationships expected to explain remittances, is presented[5].

$$R = Nr,$$

where, R = the total remittances of Turkish workers in any one year, N = the total number of Turkish workers in Germany and r = the rate of remittance per worker. As explained above, r is a function of standard of living maintenance in Turkey and desired asset accumulation for savings and investment in Turkey; specifically,

$$r = f\ (S_2 + A_2).$$

To make the model more fully understood, the following second order functions are presented :

Standard of	In Germany	In Turkey
Living	$S_1 = f_1\ (D_1, Y, A_1)$	$S_2 = f_2\ (D_2, Y)$
Asset Accumulation	$A_1 = f_3\ (L, W, I)$	$A_2 = f_4\ (A_1, S_1, S_2, E)$

where, D_1 = the number of dependents in Germany (including the worker himself),
D_2 = the number of dependents in Turkey,
Y = The domestic (Turkish) per capita income,
L = the length of intended stay in Germany,
W = the real wage differential between Turkey and Germany,

[5] A somewhat sililar model for Yogoslavia is under investigation by the IBRD *[9]*. However, the IBRD model treats length of stay and dependency, for examle, in a different manner. the IBRD also presents a migration flow equation;

$$M_t = f\ (I_t, U_t, E_t, D_t, t),$$

Where M = the yearly flow of migrants, I = an index of economic growth of the recipient country, U = the level of unemployment in the recipient country, E = real wage differential, t = time trend, and D = a dummy variable to represent labor transfer institutional arrangements between the sending and receiving country. The relationships presented here are not expressed in a lagged form; however, further research may reveal a lagged relationship is more accurate.

E = "black market" foreign exchange rate differentials,
I = an institutional arrangements factor to account for encouragement/discouragement/prohibition of imports from Germany (A_1), i.e., rearrangement of the Turkish import with waiver or tax system.

The expected relationships between these variables are presented below in the form of a set of hypotheses :

Hypotheses concerning S_2:

H_1 – the greater the number of dependents at home (D_2), the more the remittances for standard of living maintenance in Turkey (S_2), hence the greater the r,

H_2 – since it is presumed that emigrant workers do not emulate German standards of living (demonstration effect) for themselves and dependents in Germany and certainly not for their dependents at home, the lower the domestic (Turkish) per capita income (Y), as compared to other emigrant workers' domestic incomes, the lower the remittances for standard of living purposes,

Hypotheses concerning S_1:

H_3 – the more the dependents in Germany (D_1), the greater the distribution of earnings for German based living. The actual level of German based living is expected to be greatly influenced by the Turkish standard of living; in fact,

H_4 – it is presumed that Y represents a minimum level (floor) in the determination of S_1 balances, each calculated per worker or dependent. In other words, the worker will not desire to live "worse off" than he did in Turkey but he may well desire to live somewhat better off; consequently, the lower the domestic per capita income, the less necessary standard of living balances for German based living,

H_5 – the greater the desired A_1 asset balance, the lesser the amount of earnings available for S_1 purposes, at least above the minimum constraint of Y,

H_6 – the shorter the length of stay, the more rapidly the worker will attempt to accumulate his desired *(ex ante)* A_1 balance. Hence, L determines the rate of accumulation rather than the

level of desired A_1 assets; however, the actual (*ex post*) level of A_1 may be influenced by the actual length of stay. Specifically, as L increases (decreases), the *ex post* A_1 balance may increase (decrease),

H_7 – the greater the real wage differential (W) at each skill level, the greater the amount of earnings devoted for A_1 purposes. Consequently, if the wage differential falls or if Turkey should send workers whose wage differential is relatively low (presumably skilled workers), then the desire for A_1 assets should decrease somewhat since these goods would no longer be as much of a luxury as before,

H_8 – the greater the ease of importing A_1 assets (hereinafter represented by the factor I), the greater the A_1 balance. In fact, the composition of A_1 assets may well be determined by institutional factors of the Turkish import system. As long as the resale market in Turkey for automobiles and consumer durables remains buoyant, workers will shift the composition of the A_1 assets to reflect the demand in this resale market. Any adverse change (from the standpoint of the worker) in the import system may force workers to seek illegal or extra-legal imports rather than increase A_2 remittances,

Hypothesis concerning A_2 :

H_9 – the greater the black market exchange rate differential , the greater the incentive to devote A_2 (and possibly even A_1) balances for speculative purposes. The factor E may also be used to represent incentives for migrants to devote A_2 balances for savings and investment purposes abroad, where the incentives to invest abroad are greater than at home.

The fact that A_2 remittances are treated as a residual has important implications for labor migration policy formulation; moreover, to date, most students of this labor migration phenomenon have tended to equate A_2 remittances with total remittances. To avoid this confusion, much more research on the components and determinants of

standard of living maintenance and asset accumulation is necessary[6].

In summary, we may conclude that the real wage differential is the underlying causal factor for Turks desiring to go to Germany. The factor I represents a significant policy tool for Turkish financial planners since the ability of emigrant workers to import automobiles and consumer durables for resale, at a large profit, to a greater extent determines why workers devote their earnings to A_1 rather than A_2 assets. Simply stated, this means that emigrant workers benefit from both the higher wages in Germany and also the resale of A_1 assets, themselves purchased by the higher wages. The factor I becomes a significant policy tool in that Turkish financial planners could use this incentive device to influence the composition of imported A_1 assets and, if they so desired, seek institutional changes to shift earnings from A_2 to A_1 assets, being fully aware of the possibility that workers may attempt to import A_1 assets illegally or extra-legally. However, it should be reiterated that, due to the lack of relevant data, the above model and hypotheses are yet to be tested and therefore can only serve as a benchmark from which future research and analysis can begin.

The importance of labor migration to Turkish manpower and financial planners is well established but adequate data from which policy oriented analysis can be conducted are still sorely lacking. This paper has, however, attempted to present some, though certainly not all, possible factors which could be integrated into a labor migration strategy for Turkey. The model presented incorporates both the social and economic factors which most likely determine the emigrant workers'desired allocation of earnings and the timing and manner in which he distributes standard of living maintenance and asset accumulation balances. Moreover, several hypotheses are presented which explain the relationships between these explanatory variables. It is hoped that both sample and census data will be collected which would permit the testing of the hypotheses stated above, as well as other hypot-

[6] It should be noted that for each type of remittance there are legal and illegal (reported/non-reported) sub-classes. Emigrant workers may, for example sell foreign exchange to Turkish businessmen operating in Germany and have the businessmen deposit Turkish Liras in a domestic account, for S_2 purposes and such a transaction is unlikely to be recorded in any official statistics; likewise, workers may understate the value of the imported A_1 assets or even smuggle them into Turkey.

hesized relationships which Turkish planners and scholars might articulate.

TABLE 1
FOREIGN WORKERS IN GERMANY SIZE AND COMPOSITION BY YEAR AND COUNTRY OF ORIGIN, NUMBER OF WORKERS [1]

Country of Origin of Workers	1963	1964	1965	1966	1967	1968	1969	Estimate [3] 1970
Italy	286,968	296,104	372,297	391,291	266,801	303,966	340,244	330,049
Greece	116,855	154,832	187,160	194,615	140,306	144,740	174,348	206,812
Spain	119,559	151,073	182,754	178,154	118,028	115,864	135,546	149,190
Turkey	32,962	85,172	132,777	160,950	131,309	152,905	215,951	272,423
Yugoslavia	44,428	53,057	64,060	96,675	95,730	119,144	226,290	296,970
Portugal	2,284	4,636	14,014	21,091	17,803	19,980	26,379	32,802
TOTAL	603,056	744,874	953,062	1,042,766	769,977	856,599	1,115,758	1,575,072
PERCENT OF TOTAL FOREIGN WORKERS [2]								
Italy	34.6	30.0	30.5	30.4	26.8	28.3	24.8	21.0
Greece	14.1	15.7	15.4	14.9	14.3	13.4	12.7	13.1
Spain	14.4	15.3	15.0	14.1	12.9	11.1	9.9	9.5
Turkey	4.0	8.6	10.9	12.0	13.4	13.7	15.5	17.3
Yugoslavia	5.4	5.4	5.3	7.4	9.5	9.8	16.5	18.9
Portugal	0.3	0.5	1.2	1.5	1.8	1.9	1.9	2.1
Sub-Total	72.8	75.5	78.3	80.3	78.4	78.2	81.3	81.9
All Others	27.2	24.5	21.7	19.7	21.6	21.8	18.7	18.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Nürnberg, 1968, p. 46 (1963-1968); 1969 – Nürnberg, 1969, p. 14.
[2] Data for 1963-1965 as of January, 1966-1970 as of June.
[3] [9], Table III-1.

TABLE 2
FOREIGN WORKERS IN GERMANY SKILL LEVELS
PERCENT OF EACH GROUP IN CATEGORY

	MALES			FEMALES	
	Skilled	Semi-Skilled	Unskilled	Semi-Skilled	Unskilled
Italy	13	37	48	34	63
Greece	7	53	37	37	60
Spain	15	44	38	34	59
Turkey	16	38	43	33	62
Yugoslavia	55	27	14	35	58
TOTAL	20	36	34	30	53

Source : [3], *p. 20* – 1969.

TABLE 3

PERCENTAGE DISTRIBUTION OF FOREIGN LABOR FORCE IN GERMANY

	Italy		Greece		Spain		Turkey		Yugoslavia	
Sector	1965	1969	1965	1969	1965	1969	1965	1969	1967	1969
Agriculture	1.0	0.9	0.4	0.3	1.2	1.4	0.8	0.7	1.1	0.8
Energy and Mining	5.3	3.3	3.1	1.4	4.1	2.4	11.9	6.2	3.3	2.2
Metals	29.6	35.7	48.1	51.1	41.0	42.8	40.7	43.4	23.2	34.2
Manufacturing	23.3	28.1	36.6	35.5	30.6	31.7	19.4	25.8	16.6	17.4
Construction	29.6	18.5	5.6	3.5	10.9	6.9	18.8	15.5	28.9	29.6
Trade	2.7	3.6	1.8	2.4	2.4	3.5	1.5	1.9	4.3	2.7
Transport	3.1	2.6	0.6	0.7	3.8	4.0	2.7	2.1	0.7	0.7
Services	5.3	7.2	3.7	5.1	5.9	7.4	4.2	4.3	21.9	12.6

Compiled from [3], *pp.* 102 - 109 – 1969.

TABLE 4

FOREIGN WORKERS IN GERMANY
GROWTH RATES OF SELECTED VARIABLES

	Number			Total Remittances ($ Million)			Per Capita Remittances ($)		
Nationality	1963	1969	GR[1]	1963	1969	GR	1963	1969	GR
Italy	286,968	340,244	2.4	142	246	9.6	495	722	6.5
Greece	116,855	174,348	6.9	43	97	11.4	371	555	6.9
Spain	119,539	135,546	2.2	61	93	7.3	510	685	5.0
Yugoslavia	44,428	226,290	13.2	20	177	13.7	450	563	3.8
Turkey	32,962	215,951	13.6	20	138	13.8	592	639	1.3
Total	603,056	1,115,758	11.1	306	753	11.6	—	—	—
Average	—	—	—	—	—	—	484	633	4.6

1 Annual compound Growth Rate. Calculated from [3], *p.* 5 – 1969.

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ÖZET

İŞÇİ DÖVİZİ VE TÜRK EKONOMİSİ

1970 yılında Türk işçilerinin yurda getirdikleri döviz miktarı 273 milyon dolara ulaşmıştır. Bu rakam Türkiye'nin toplam ihracatının % 46'sına eşittir. 1963 ve 1969 yılları arasında Almanyadaki yabancı işçi oranı % 11.1 artarken Türk işçilerinin sayısındaki artış % 13.6 oranında olmuştur. 1968 yılında Almanya'ya resmi kanallardan gelen Türk işçileri toplam yabancı işçilerin % 40'ını ve toplam resmi talebin % 38'ini meydana getirmişlerdir.

TÜRK İŞÇİLERİNİN DİĞER İŞÇİLERLE MUKAYESESİ

Diğer işçilerle mukayese edilirse Türk işçilerinin aşağıdaki özellikleri ortaya çıkmaktadır: a) Türk işçileri Almanya'ya daha erken yaşlarda gitmektedirler (25 ve 35 yaşlar-arası), b) eşlerini beraberlerinde götürmemektedirler, c) işveren firmalar tarafından temin edilen meskenlerde yaşamaktadırlar, ve d) Almanya'da daha kısa süreler için kalmaktadırlar. 1963 ve 1969 yılları arasında bütün yabancı işçilerin döviz transferleri % 4.6 oranında artarken, Türk işçileri için bu oran % 1.3 olarak kalmıştır.

İŞÇİ HARCAMALARI

Almanya'daki Türk işçileri kazançlarını dört grup harcamalar için kullanmaktadırlar :

	Almanya'da	Türkiye'de
Masraflar	$S_1 = F_1 (D_1, Y, A_1)$	$S_2 = F_2 (D_2, Y)$
Mal Birikimi	$A_1 = (L, W, I)$	$A_2 = F_4 (A_1, S_1, S_2, E)$

Yukardaki dört harcama grubunun belirtilen değişkenler tarafından aşağıda sıralandığı gibi etkilendiği ileri sürülebilir :

Türkiye'deki harcamalar (S_2) ile işçinin Türkiye'de geçimini sağladığı kişiler (D_2) ve Türkiye'nin fert başına düşen geliri (Y) arasında pozitif bir korrelasyon vardır.

Almanya'daki harcamalarla (S_1) işçinin Almanya'da geçimini sağladığı kişiler (D_1) ve Türkiye'deki yaşama düzeyi (Y) arasında pozitif ve Almanya'daki mal birikimi (A_1) arasında negatif bir korrelasyon vardır.

Almanya'daki mal birikimi harcamaları (A_1) ile işçinin Almanya'daki kalış süresi (L) arasında ters bir bağıntı vardır. Aynı mal birikimi harcamaları ile Türkiye ve Almanya'daki ücret farkları (W) ve ithalat kolaylıkları (I) arasında pozitif bir korrelasyon vardır.

Türkiye'deki mal birikimi harcamaları diğer üç gruptaki harcamalara bağlı olarak değişecektir. Bu gaye için kullanılan paranın spekülatif gayelerle kullanılması resmi döviz kuru ve karaborsa farklarına bağlı olarak değişecektir.