NOTES AND COMMENTS

Estimating the surplus in the periphery: an application to Turkey

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This note discusses how the economic surplus concept can be used to analyse the constraints the world system imposes on economic development. An estimation of the surplus for Turkey for 1980–96 utilises Köhler’s unequal exchange analysis to measure the transfer of surplus abroad and the official minimum wage to calculate essential private consumption. The estimation yields the allocation of the surplus between non-essential consumption, investment and unrequited transfers abroad. The note assesses Lippit’s argument that the main obstacle to development is the misuse of the surplus in the domestic economy and not transfers abroad.

Key words: Economic surplus, Dependency, Development
JEL classifications: B510, O110

The revival of the classical concept of the economic surplus by Baran (1967) and Baran and Sweezy (1968) in the context of their argument that capitalism had made a transition to a monopolistic phase was followed by several estimations of the surplus in the US (Stanfield, 1973; Dawson and Foster, 1992; Lippit, 1992). Discussions on the economic surplus in the periphery of the world-system have, in contrast, remained theoretical (Lippit, 1985, 1987, 1988; Kanth, 1987; Danielson, 1990; Yeldan, 1995). The purpose of this paper is to provide an estimation of the economic surplus for a semi-industrialised underdeveloped country, Turkey, thereby contributing some methodological propositions regarding estimation.

The economic surplus (we shall call it ‘surplus’ for brevity) is the real income exceeding the essential consumption necessary for the reproduction of the labour force in a society, i.e., the flow of goods and services that is available for capital formation. In the context of underdevelopment, the surplus shows the potential for capital formation and helps to gauge what part of this potential is utilised. In other words, it measures the extent to which saving and investment in underdeveloped countries are constrained by low incomes (as held by the ‘poverty trap’ argument), and to what degree they are repressed by the misuse of incomes. Such an assessment cannot be done by studying and comparing observed saving and investment rates. The relevance of surplus analysis has been indirectly enhanced by studies...
of East Asian industrialisation in the last decade that have highlighted the importance of the rate of capital formation in raising productivity and promoting industrial upgrading, along-side a judicious allocation of investment among sectors (Akyüz and Gore, 1996; Akyüz et al., 1998, pp. 7–8).

Lippit (1985) criticised the various variants of the surplus proposed by Baran (1967) and showed cogently that the definition ‘net domestic product minus essential consumption’ is the most useful one. But at the same time, Lippit implicated the concept in the modernisation versus dependency debate. He argued that Baran’s focus on the role of imperialism in underdevelopment had inhibited the use of the surplus concept in development studies. In his view, the distribution of the surplus among classes was the main determinant of the constraints on economic development in underdeveloped countries, because the use of the surplus in productive investment or its wastage in non-essential consumption depended on the extent to which the surplus accrued to classes that are or are not inclined to save and to carry out productive investment. Hence the main obstacle to economic development was the domestic misuse of the surplus, so that the concrete study of underdevelopment should begin with an analysis of this misuse. The drain of the surplus out of the underdeveloped country was of secondary importance, and should be taken up after the investigation of the domestic misuse of the surplus.

This paper takes up this argument by presenting in the following section an account of how the capitalist world-system impedes economic development in the periphery through its effects on saving and investment, and the mechanism whereby part of the surplus is transferred abroad through unrequited real transfers resulting from market exchange rates that undervalue the exports of underdeveloped countries. This provides part of the basis for the surplus estimation that follows in Section 2. Section 3 concludes.

1. The allocation of the surplus in the periphery

In order to assess Lippit’s view that ‘[i]t is necessary to investigate first the role of class structure and surplus use, and only when that has been done, to examine the impact of the capitalist world economy on the domestic structures of the underdeveloped countries’ (1985, p. 4), it is useful to review how the capitalist world-system obstructs economic development in underdeveloped social formations. We shall describe the retarding and distorting influences of the world-system on underdeveloped economies as they appear today, i.e., in the environment of liberal trade policies, deregulated and integrated financial systems and the relocation of manufacturing production by transnational corporations.

The world-system reproduces underdevelopment in underdeveloped countries through four distinct effects.

(1) The dependent integration of the underdeveloped economy into the world-system leads to a drainage of part of the surplus to the centres of the system. In underdeveloped countries, official reserve accumulation and capital outflows1 together generate a strong demand for reserve currencies that is not related to trade. This demand, coupled with extreme competition among underdeveloped country producers in their export markets, pulls the market value of their currencies below their purchasing power parities against the reserve currencies. The purchasing power parity of each currency against the US dollar is

1 The ratio of net acquisitions of foreign assets by residents of underdeveloped countries to net acquisitions of domestic assets by non-residents has been increasing. ‘In the emerging markets, for each dollar of net inflow there was a net outflow of 14 cents in the 1980s but of almost 24 cents in the 1990s. For developing countries as a whole, this share more than doubled during the 1990s alone.’ (UNCTAD, 1999, pp. 106–7).
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estimated by a meticulous comparison of the cost of a comprehensive basket of goods and services in the currency of the respective country and its dollar cost in the US (Kravis et al., 1978; Ward, 1985). Thus the purchasing power parity roughly approximates the average ratio of the domestic prices of the exports of a country to the dollar prices of close substitutes of these exports in the US. Consider a country where the currency’s dollar exchange rate is, say, thrice its dollar purchasing power parity. When the dollar price of its exports are set by the market exchange rate, it may be said to be supplying its goods and services to the US at roughly one-third the price of their substitutes there. With the dollar earnings from its exports, this country can only import one-third of what it could import with export earnings at the ‘fair’ purchasing power parity rate. This unequal exchange has been revealed by Köhler (1998). He discovered a negative correlation between per capita incomes and the exchange rate ‘distortions’ for 119 countries and made estimations of the global transfer of resources to the OECD countries.

One objection to this reasoning could be that the purchasing power parity ignores differences in quality between the substitute goods in different countries. However, it is difficult to distinguish between quality differences and superficial product differentiation, and even genuine differences in quality (durability etc.) can hardly account for the observed wide disparity between market exchange rates and purchasing power parities.

A more serious problem is that the basket of goods on which the purchasing power parity is estimated includes non-tradables and tradables that are not exported. The purchasing power parity for estimating unequal exchange should be based only on comparisons of prices of traded goods and services. If the average price ratio of traded goods and services in the underdeveloped country to those of the developed country is greater (or less) than the corresponding ratio of non-traded ones, this would make the (currently available) purchasing power parity lower (or higher) than the purchasing power parity for traded goods—and overestimate (or underestimate) the distortion.

These considerations suggest that there may be some inaccuracy in estimating real resource transfers using the purchasing power parity as calculated by the UN and the OECD. But they do not invalidate Köhler’s method of estimating unequal exchange, as ‘difficulties encountered in the measurement of a phenomenon should not be permitted to obscure the existence of the phenomenon itself’ (Baran, 1967, p. 36).

Information on the distribution of value-added along global commodity chains supports the Köhler analysis. In Turkey, for instance, garment manufacturers in Istanbul and in the Denizli region produce wearing apparel for contracting transnational companies (TNCs), who then sell them in developed country markets at prices between four and five times their purchasing cost from Turkish manufacturers (Dikmen, 2000, pp. 215, 243). The difference between the export prices of garments produced in Turkey and their sale prices set by the outsourcing TNCs is, besides the real costs of transportation etc., a function of the competitiveness of the label (the marketing and advertising success of the company), and of the intensity of competition among garments producers in Turkey and between the latter and producers in numerous other underdeveloped countries. Garment TNCs clearly have a much greater ability to set prices than the actual producers. Now Turkey, a garments producer and exporter, also imports garments under its liberal import regime (e.g., 144 million dollars’ worth of ‘apparel and clothing accessories’ were imported in 1996). On the basis of the above information, when the garment TNCs market their wares in Turkey, the garment barter terms of trade would be roughly four or five units of Turkish-labelled

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garments for one unit of garments labelled and marketed by a TNC (and possibly produced in Turkey or Bangladesh or elsewhere). Such terms of garments trade clearly involves an unrequited transfer of real resources (labour, capital depreciation, productivity of the soil etc.) abroad.

The real resource transfer is most transparent in the trade of the same class of commodities. However, the analysis can be extended to trade between different categories of goods. Turkey imports from the developed countries high-technology goods wherein it has no domestic production. The prices of these goods include technological rent (monopoly profits due to control over technology). Part of this rent is paid to skilled workers as (high) wages in the developed countries where high-technology goods are designed or produced. From another angle, the wages of the skilled workers are determined by the costs of living in those countries, determined (among other things) by the prices of garments, which include the high value-added of the garment TNCs over the production costs of the actual producers in countries like Turkey. So, either the value-added including technological rents in the high-tech sectors is shared with the garment industry by paying high wages to skilled workers (who then can afford to pay the garment prices set by the TNCs) or, alternatively, the garment TNCs’ high value-added increases the cost of employing skilled workers (and thereby jacks up the prices of high-technology goods produced or designed in the developed countries). Both causalities probably hold. What is clear is that the pricing system that causes unequal exchange in intra-garment-industry trade also determines the terms of trade between garments produced in Turkey and high-technology goods produced in the developed countries more favourably for the producers of the latter than would be the case under fair trade.

Hence, given the price levels in domestic currencies in individual countries, the intense demand for reserve currencies in a dependent economy and competitive pressures in its export markets tend to undervalue the domestic currency against the ‘hard’ currencies relative to their respective purchasing powers, which results in an unrequited transfer of resources in trade. The unrequited transfer causes a drain of part of the surplus out of underdeveloped economies, thus reducing their resources for investment.

(2) Once the surplus available for domestic use is determined, the part of the surplus allocated to saving is affected by the level of non-essential consumption. The consumption culture of the capitalist world-system encourages societies in underdeveloped countries to imitate the consumption patterns of the developed countries (Villamil, 1979, p. 315; Sklair, 1994, pp. 178–9). The dominance of the core countries in mass communication, in the arts and in social sciences plays an important role in diffusing this culture. Financial deregulation has boosted this tendency by allowing expansion of consumer credit, and trade liberalisation has contributed by eliminating the possibility of controlling the importation of consumer goods. Resources that could be used for fixed capital formation or for investment in health and education are squandered in superfluous private and public consumption.

1 As an indicator of superfluous consumption, car ownership figures (reported by UNCTAD, 1997, pp. 180–181) for 11 underdeveloped countries (including South Korea) and five developed countries at various levels of per capita GDP clearly show that the underdeveloped countries (except South Korea) have generally had higher numbers of cars per thousand population compared with the centre countries when the latter had comparable levels of per capita income.

2 In 1999, the average of gross domestic saving as a percentage of GDP was 22% in the high-income countries. In the Latin America and Caribbean region, in the Middle East and North Africa region, in South Asia and in Sub-Saharan Africa this figure was lower. The figure for the high-income countries was exceeded only in the low and middle income European and Central Asian countries (25%) and in the East Asian and Pacific group (%37) (World Bank, 2000, p. 299).
(3) In the last two decades the environment for fixed capital formation in underdeveloped countries has been deteriorating owing to domestic financial deregulation and international financial integration (stipulated in various credit arrangements with international financial institutions and the 1994 GATT agreements). Volatile capital flows in large volumes have come to cause instability in exchange rates and have created pressures for interest rates to be kept at high levels to compensate for perceived exchange rate and political risks. Exchange rate instability also increases the perceived risks of investment projects. Both exchange rate instability and high interest rates discourage investment, constraining the rate of capital formation in underdeveloped countries.1

(4) The sectoral composition of investment in underdeveloped countries is also influenced by financial deregulation. Exchange rate instability affects the sectoral composition of investment in favour of non-tradables. More importantly, in underdeveloped economies with open trade and liberal FDI policies, the sectors that expand are determined by static comparative advantages as determined by ‘factor endowments’ and by the outsourcing and relocation strategies of TNCs. In other sectors, competitive pressures from TNCs impede the initiation of investment projects by domestic producers that, though initially unprofitable at world prices, could become profitable eventually as economies of scale are reaped through production expansion, and as productivity is boosted through learning-by-doing. This influence ultimately hinders the upgrading of industry (expansion into higher technology sectors) and the articulation of the economy (the development of backward and forward linkages).

On the basis of this description of the working of the world-system in underdeveloped social formations, one can proceed to assess what the relevant use of surplus estimation and analyses should be in these formations. The description suggests that economic development in these societies necessitates policies to boost saving, investment and industrial upgrading. From this angle, surplus analysis in the context of an underdeveloped social formation should first and foremost focus on the allocation of the surplus between the drain abroad, non-essential consumption and investment, i.e., on the pattern of its disposal. The locus of extraction of the surplus and its secondary distribution among classes as income is of interest from a developmental perspective only in so far as it sheds light on the pattern of disposal.

One would expect income redistribution within underdeveloped countries to influence the drain of surplus abroad and the overall saving rate only marginally in today’s environment of free international trade and financial flows. The incitement to superfluous consumption of domestic and imported consumer goods affects not only capitalists and landlords, but also the petty bourgeoisie and even the working class. Anyone who has discretionary excess income to save is vulnerable to the consumer culture that incites people to follow consumption fashions and to acquire status symbols. Moreover, with currency convertibility, not just ‘traditional’ groups, but all those who have savings—large or small—participate in speculating against their national currencies.

Given the uncertainty in the economic environment of underdeveloped countries that have been quite thorough in liberalising their trade regimes and in deregulating international capital flows, it is highly improbable that domestic income redistribution would have a perceptible effect on the rate of fixed capital formation. Similarly, income redistribution

1 In 1999, the average of gross domestic investment as a percentage of GDP was 21% in the high-income countries. In none of the underdeveloped regions bar East Asia did the corresponding figure exceed that of the high income countries by more than one percentage point (World Bank, 2000, p. 299).
cannot be expected to contribute to orienting the composition of investment towards industrial upgrading in an environment of liberal trade policies and liberal FDI regimes.

In underdeveloped social formations, therefore, the key to the problem of development is not so much the distribution of the surplus among classes as the incentives and constraints affecting saving and investment behaviour. The world-system influences such social formations through the interaction of foreign interests with domestic ruling class interests to shape the entire domestic incentive and constraint environment in the underdeveloped social formation. Hence, the central problem of development seems to be to replace the incentives and constraints imposed by the world-system with incentives and regulations based on national development priorities in the interests of the labouring masses.

2. The surplus in the economy of Turkey

2.1 The source of the surplus

We calculate the surplus in Turkey for the years 1980–96. The date 1980 marks the commencement of Turkey’s transition to liberal economic policies.

The first issue is to determine the source of the surplus, from which essential consumption is to be deducted. The source of the surplus is, roughly, net domestic product with adjustment for foreign trade. In the conventional macroeconomic income–expenditure equation, the current account balance is incorporated so as to show the effect of trade on aggregate demand and thereby its stimulating effect on domestic economic activity. From this perspective, imports naturally subtract from GDP, and exports add to GDP. But as the surplus is the flow of goods and services available for capital formation, imports should be enhancing the surplus, and exports should be treated as reducing it. In the same vein, capital inflows that do not finance imports of goods and services should not be treated as contributing to the source of surplus. The part of the inflow of capital that does not finance imports is allocated to accumulate reserves and to finance capital outflows and does not directly involve real resource transfers.

Hence our first approximation to the source of surplus is net domestic product (NDP) plus imports of goods and services (M) minus exports (X). This is equal to the sum of private and public consumption expenditure (C) plus the sum of private and public net investment expenditure (I), i.e., \( \text{NDP} + M - X = C + I \).

Turkish and OECD statistics give NDP, C and I in Turkish liras, and trade figures in US dollars. The dollar values of annual exports do not reflect their value at ‘international’ prices, but what exporters have been able to earn (on the basis of production costs and market exchange rates) in the highly competitive markets for Turkey’s exports. In the period under study, the dollar exchange rate of the Turkish lira fluctuated around roughly twice the purchasing power parity of the lira. Thus the prices of Turkey’s exports in dollars were on average lower than what their close substitutes in developed countries fetch in their home markets. The loss in foreign exchange earnings is a loss of imports; in other words, a drain out of the surplus to the developed OECD countries. More than half of Turkey’s exports are sold to the OECD and an even greater proportion of its imports are from the OECD. (Turkey’s trade with underdeveloped countries would involve such transfers in Turkey’s favour, but the large number of such trading partners and the wide range of their exchange rate distortions—in 1995 the distortions ranged from 0.95 to 10.13 (Köhler, 1998)—make the calculation of such transfers too cumbersome for the present objective. We therefore ignore this complication.)

Hence the sum of Turkey’s NDP and trade deficit (out of which essential consumption is
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to be deducted) must be corrected for unequal exchange with the OECD countries due to
this distortion. The source of surplus (in liras) must then be:

\[ \text{NDP} + M - X + [1 - (P/e)]X_{oecd} \]

where \( e \) is the US dollar exchange rate, \( P \) is the purchasing power parity with the US dollar,
and \( X_{oecd} \) is exports to the OECD countries.

Table 1 shows the source of the surplus for 1980–96 in international dollars. The explana-
tion for the calculation of the drain abroad is provided in the Appendix.

2.2 Essential consumption
The next question is the estimation of essential consumption that is to be deducted from
the source of surplus. Taking average product in agriculture as private essential consumption,
as suggested by Danielson (1990, p. 221) would not be appropriate for Turkey, where more

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual minimum wage (ppp $ 000)</th>
<th>Essential consumption (ppp $ bn)</th>
<th>Source of surplus (ppp $ bn)</th>
<th>Surplus (ppp $ bn)</th>
<th>Proportion of surplus to NDP (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crisis</td>
<td>1980</td>
<td>1·2390</td>
<td>52·3</td>
<td>101·8</td>
<td>49·5</td>
</tr>
<tr>
<td>Post-crisis adjustment</td>
<td>1981</td>
<td>1·4897</td>
<td>63·5</td>
<td>116·1</td>
<td>52·5</td>
</tr>
<tr>
<td>Export-oriented growth</td>
<td>1982</td>
<td>1·4545</td>
<td>63·5</td>
<td>126·7</td>
<td>63·2</td>
</tr>
<tr>
<td>1983</td>
<td>1·9499</td>
<td></td>
<td>141·2</td>
<td>54·3</td>
<td>41</td>
</tr>
<tr>
<td>1984</td>
<td>1·9101</td>
<td>87·3</td>
<td>160·4</td>
<td>73·2</td>
<td>50</td>
</tr>
<tr>
<td>1985</td>
<td>1·6504</td>
<td>77·5</td>
<td>170·9</td>
<td>93·4</td>
<td>59</td>
</tr>
<tr>
<td>1986</td>
<td>1·7935</td>
<td>86·1</td>
<td>186·8</td>
<td>100·7</td>
<td>58</td>
</tr>
<tr>
<td>1987</td>
<td>1·9329</td>
<td>95·4</td>
<td>209·2</td>
<td>113·8</td>
<td>59</td>
</tr>
<tr>
<td>Exhaustion of reform</td>
<td>1988</td>
<td>2·0538</td>
<td>103·6</td>
<td>210·1</td>
<td>106·6</td>
</tr>
<tr>
<td>External financial deregulation</td>
<td>1989</td>
<td>2·0417</td>
<td>107·1</td>
<td>224·9</td>
<td>117·8</td>
</tr>
<tr>
<td>1990</td>
<td>2·4447</td>
<td>131·9</td>
<td>268·6</td>
<td>136·8</td>
<td>55</td>
</tr>
<tr>
<td>1991</td>
<td>3·0276</td>
<td>166·7</td>
<td>286·9</td>
<td>119·6</td>
<td>45</td>
</tr>
<tr>
<td>1992</td>
<td>3·5057</td>
<td>197·3</td>
<td>311·4</td>
<td>114·1</td>
<td>39</td>
</tr>
<tr>
<td>1993</td>
<td>3·7780</td>
<td>217·1</td>
<td>356·9</td>
<td>139·9</td>
<td>43</td>
</tr>
<tr>
<td>Crisis</td>
<td>1994</td>
<td>3·1685</td>
<td>184·4</td>
<td>322·2</td>
<td>147·8</td>
</tr>
<tr>
<td>Restoration of capital inflows</td>
<td>1995</td>
<td>3·0336</td>
<td>179·6</td>
<td>373·7</td>
<td>194·0</td>
</tr>
<tr>
<td>1996</td>
<td>3·7436</td>
<td>224·9</td>
<td>399·2</td>
<td>174·3</td>
<td>50</td>
</tr>
</tbody>
</table>


Essential consumption: calculated from annual minimum wage data in first column and State Institute of Statistics (DIE) data on mid-year population, dependency ratios of population aged 0–14, current expenditure of Ministry of Health and Ministry of National Education.

Source of surplus: Calculated from GDP and capital depreciation data in OECD National Accounts and the balance of the trade deficit and the drain in the second column.

Surplus: the difference between source of surplus in the fourth column and essential consumption in the third column.
than half of the population is urbanised and agriculture no longer provides an alternative opportunity to earn a living or to subsist on for the urbanised masses.

The obvious alternative option as a measure of essential private consumption is the official minimum wage. This wage is adjusted for Turkey’s chronic high price inflation by a tripartite commission comprising representatives of employers, trade unions and the government. The annual consumer price inflation rate for urban areas fluctuated around an average of 40% over 1982–87, jumped to 75% in 1988, fluctuated around 68% in 1989–93, jumped to 106% in 1994 and averaged 87% in 1995–96. The minimum wage has been adjusted for inflation just 14 times over 1980–96, the average renewal period extending more than a year. This procedure has provided plenty of leeway for adjusting the real minimum wage downward without provoking a reaction.\(^1\)

The minimum wage is determined through a bargaining process, involving debates over calculations of the costs of subsistence. The tripartite commission’s estimation of the cost of minimum food requirement is based on the calorie intake needs of a single person. There is evidence that, at times, the adjusted minimum wage did cover the cost of a balanced diet for a single adult (Kasnakoglu, 1999, pp. 186–7). So the official minimum wage may, in some years, have corresponded to what may be called the cost of essential private consumption. On the other hand, the enforcement of labour market regulations in Turkey is lax, so informal employment at wages lower than the legal minimum is common in small private manufacturing and service enterprises, which means that many workers subsist on wages lower than the official minimum wage.\(^2\) Many workers (in both formal and informal employment) supplement their regular wages by moonlighting and home production and some obtain foodstuffs from their native villages (Altug, 1999, p. 13; Kasnakoglu et al., 1997). Such ‘subsidisation’ of wages in underdeveloped countries makes it possible for the working class to survive and reproduce on very low wages (Fröbel, 1988). It also makes it difficult to associate observed wages with essential private consumption.

There are, however, other grounds for using the minimum wage in the estimation of essential private consumption. The whole exercise of calculating the surplus is aimed at an assessment of the use of the discretionary income of a society. Given the class character of the state and the weakness of the trade union movement in Turkey, the determination of the minimum wage in the commission is dominated by business interests.\(^3\) So the official minimum wage is what the ruling classes deem to be subsistence wages and approve as a minimum wage (for those enterprises complying with labour legislation). Hence it is politically and morally appropriate that essential and non-essential consumption and the surplus should be calculated on the basis of what the ruling circles declare as the costs of essential private consumption.\(^4\)

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\(^1\) This is because real wages erode gradually in price inflation. When wages are adjusted for past inflation, wage earners feel relieved with the abrupt upward adjustment, even though their purchasing power may be less than what it was immediately after the previous adjustment (around a year ago).

\(^2\) Boratav et al. (1998, Table II-1) give estimates for unregistered labour employment in the manufacturing industry in Turkey in 1980, 1985, 1990 and 1992–95. The average proportion of unregistered workers to total manufacturing labour employment for these years is 44 %, ranging from 39 % (1985) to 49 % (1994).

\(^3\) Trade unionists report that the minimum wage is determined with the votes of business representatives and government representatives generally overriding the demands of the trade unionists (Bagdadioglu, 1999, p. 216).

\(^4\) Yeldan also uses the minimum wage as a measure of essential consumption in his estimation of the excess wage income (wage in excess of subsistence costs of living) of manufacturing workers in Turkey, indicating that this procedure does not imply that the minimum wage may be ‘a true indicator of the costs of subsistence’ (Yeldan, 1995, p. 43).
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As the minimum wage in Turkey is fixed as the subsistence wage for a single adult, it must be multiplied by the total population. The dependency ratios for the 0–14 age group found in the 1980, 1985, 1990 and 1997 censuses are used (with linear interpolation for the intervening years) together with the assumption that minors' consumption is 75% that of adults to calculate the adult-equivalent consuming population. The product of the adult-equivalent consuming population and the minimum wage yields the value of essential private consumption.

With regard to essential public consumption: in principle, the state in Turkey provides free health and education services. Ignoring the gross inadequacy in the quality and accessibility of such services, we take the current expenditure of the health and education ministries as public essential consumption. Adding the current expenditure of the central government on health and education to private essential consumption yields total essential consumption.

Subtracting total essential consumption from the source of surplus yields the surplus. Table 1 presents total essential consumption and the surplus in Turkey for 1980–96.

2.3 Analysis of changes in the surplus and its use

The demarcation into subperiods in Table 1 is taken from Yeldan (2001, p. 41). The source of surplus figures reveal a positive relationship with the macroeconomic cycle. 1988 was marked by a slowdown in growth and investment; in 1994, Turkey experienced a balance of payments crisis; in those years the source of surplus stagnated or declined. In contrast, 1989–93 and 1995–96 are years of short-term capital inflows, real appreciation of the lira, and expanding merchandise trade deficits. Import booms fuelled by short-term capital inflows stimulate domestic economic activity in Turkey, as in other underdeveloped countries (Yeldan, 2001, p. 34; Calvo et al., 1996). This stimulation of GDP growth by imports renders the source of surplus more cyclical than it would be if imports replaced domestic economic activity.

The surplus generated in the Turkish economy shows a rising trend with large fluctuations. The proportion of the surplus to net domestic product also shows large swings, fluctuating around an average of 51%.

Table 2 shows the decomposition of changes in the growth of the surplus. There are eight variables that affect the growth of the surplus (six of which are aggregates): net domestic product, imports, exports, exports to the OECD, the distortion factor, the minimum wage, current public expenditure on health and current public expenditure on education.

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1 This mode of calculation contravenes a point raised by Danielson (1990, pp. 218, 223) who argues that only the subsistence wages of employed workers be considered in essential consumption. He gives an example of a closed economy with no government, where profits are 100 currency units, capitalists do not consume, 10 employed workers earn 10 units each, there are 10 unemployed workers and the subsistence wages are 8 units. When the surplus calculation takes subsistence income to be 160, it distributes part of the realised surplus (120 units comprising profits and excess wages) to the 10 unemployed workers, which in his view is groundless. This objection is not valid. Workers earning less than the subsistence income must be being subsidised through various non-market transfers by those who earn more. The unemployed workers who receive nothing in Danielson's example simply could not survive. Total labour income (100 units in his example) cannot possibly fall short of total subsistence income (160 units). Lippit also disregards Danielson's view (Lippit, 1992, pp. 83–4).

2 By contrast, Yeldan considers all government expenditure in Turkey as surplus-consuming (1995, pp. 43–4).

3 This average is much higher than Lippit's (1992, p. 87) calculation for the 1986 US surplus, which was 23.7% of NNP. By contrast Dawson and Foster's (1992, p. 63) figures for the US surplus as percentage of GNP over 1963–88 average 51%. However, there is not much analytic value in comparing surplus figures estimated by different procedures for countries with vastly different structures.
Table 2. Proportional contribution of components to the annual change in the surplus

<table>
<thead>
<tr>
<th>Year</th>
<th>Changes in NDP (+)</th>
<th>Changes in imports (+)</th>
<th>Changes in exports to OECD (+)</th>
<th>Changes in distortion factor (+)</th>
<th>Changes in population expenditure (+)</th>
<th>Changes in minimum expenditure (+)</th>
<th>Changes in public health expenditure (+)</th>
<th>Changes in public education expenditure (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>2.54</td>
<td>0.38</td>
<td>0.38</td>
<td>0.05</td>
<td>-0.01</td>
<td>0.09</td>
<td>1.48</td>
<td>-0.00</td>
</tr>
<tr>
<td>1982</td>
<td>1.50</td>
<td>0.33</td>
<td>0.37</td>
<td>0.06</td>
<td>-0.02</td>
<td>0.07</td>
<td>0.46</td>
<td>0.00</td>
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Note: The columns are calculated as (1) ΔNDP/Δsurplus, (2) ΔM/Δsurplus, (3) [1-(P/e)]×ΔX_{OECD}/Δsurplus, (4) X_{OECD}/Δ(P/e)/Δsurplus, (5) (minimum wage)/Δpopulation/Δsurplus, (6) population×(minimum wage)/Δsurplus, (7) Δ(public health expenditure)/Δsurplus, (8) Δ(public education expenditure)/Δsurplus. The notation is the same as in the text.

Source: Same as Table 1.

An unsteady rate of increase in the minimum wage (see Table 1) is one factor affecting the growth in the surplus. The surplus as measured in international dollars declines in 1983, 1988, 1991, 1992 and 1996. The minimum wage shows the greatest increases in 1981, 1983, 1990, 1991 and 1996. A second important factor affecting the growth rate of the surplus is the growth rate of net domestic product and thereby of the source of surplus. Variations in the rate of increase in the drain abroad and in the growth rate of public essential consumption do not appear to have a perceptible impact on the growth rate of the surplus. The distortion factor (ratio of actual dollar–lira exchange rate to the purchasing power parity) ranges between 1·45 and 2·60 in the period; but as the exports to the OECD are small in comparison with the other determinants of the surplus, the variation in the drain plays an insignificant role in the rate of increase of the latter.

Keeping in mind the possible objections to the use of purchasing power parities for calculating the drain abroad, it seems safe to say that the drain from the surplus to the OECD countries, although not large, is not negligible. According to our estimation (Table 3), it averaged 10% of the surplus over the period 1980–96. The share of the drain was low in 1980–82 because Turkey had only newly begun to implement export-promoting policies. Exports subsequently rose in response to the suppression of wages and agricultural prices and tax rebates implemented until 1988, policies which served to allocate more of the surplus to domestic export-oriented capital as well as transferring part of it abroad (Yeldan, 1995, pp. 44–5). This can be seen in the rise in the share of drain abroad in 1983. The share of the drain shows a second sharp rise with the next important devaluation in 1994.
From Table 4, it appears that the average share of the drain abroad in net domestic product was 6% over 1983–96.\(^1\) The total of the unrequited transfers abroad over 1980–96 amounts to over 190 billion dollars. In many years, the drain out of the surplus exceeded the excess of imports over exports. In other words, the drain through trade impinged on the domestically produced surplus.\(^2\) Hence, import-financing capital flows to Turkey appear to have primed the pump of unrequited exports.

The share of non-essential consumption in the surplus averaged 55% in 1980–96. An average 38% of the surplus was spent on non-essential private consumption. Non-essential private consumption includes expenditure on what could be called the amenities of civilised life. But some of the private non-essential consumption is luxury consumption, as would result from an inequitable income distribution.\(^3\) According to the 1994 income distribution

\[^1\] Köhler estimated an unrequited transfer equal to 10% of GNP for Turkey in 1995 (1998, p. 160). Our estimation for the share of the drain abroad in net domestic product for 1995 is 7%. One reason for the difference is that Köhler divided underdeveloped countries’ distortion factors by 0.9, which was the average distortion factor (ratio of purchasing power parity exchange rate to market rate) for the currencies of the OECD countries that year. In our estimation this is ignored, as justified in the appendix.

\[^2\] Lippit argues (1985, p. 18, fn. 1) that trade stimulates the domestic production of part of the surplus, and that a surplus drain abroad can merely reflect an unequal partition of the ‘gains from trade’, but not a drain out of a surplus that could equally be generated in a closed economy. This proposition cannot be verified empirically, as it would require quantitative information on the counterfactual surpluses that could be produced under trade regimes with various degrees of control.

\[^3\] It is observed that ‘life styles of the privileged minority of Turkish society during the past two decades have increasingly resembled, and even become almost identical with the upper classes of Western societies’ (Boratav et al., 1999, p. 36).
Table 4. Drain out of surplus and external resource flows in Turkey (1980–96)

<table>
<thead>
<tr>
<th>Year</th>
<th>Share of drain in net domestic product (%)</th>
<th>Drain in ppp bn $</th>
<th>Balance of current account deficit and drain in ppp bn $</th>
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Sources: Same as Table 1.

survey (the most recent) conducted by the Turkish State Institute of Statistics, the highest-income 1% of households received 17% of total income, the highest-income 5% of households received 30% of total income and the highest-income 10% received 41%. The high share of non-essential consumption together with the skewed income distribution in Turkey imply that there is scope for a substantial increase in saving out of the surplus and for a considerable increase in the share of investment.

The share of total net investment in the surplus averaged 35% over the period under study. However, what appears as investment expenditure in Turkish data includes many forms of waste. One conspicuous form of waste appearing as fixed investment is superfluous private residential construction (e.g., vacation villas congesting the Aegean and Mediterranean coastline). Another form of waste appearing in statistics as public investment is public expenditure on non-essential equipment (official cars, lavish office furnishings, etc.) and extravagance in the construction of government office buildings and government residences for top-ranking civil servants. There are no figures that could be used to estimate luxury consumption and the waste hidden under the rubric ‘investment’.

Our findings on the distribution of the surplus in Turkey lend support to one of Lippit’s general arguments: Over the 1980–96 period, the scope for increasing investment by reducing non-essential consumption appears to have been greater than by reducing the drain abroad; the share of non-essential consumption in the surplus in our calculation was five times the share of the drain abroad. Obviously, these magnitudes could be quite different in other underdeveloped countries with greater exchange rate distortions and higher shares of exports to the OECD in domestic product.

3. Conclusion

To summarise our main findings: in the period under study, on average half of net domestic product was an economic surplus over the output allocated to the essential needs of
Estimating the surplus in the periphery

reproducing the labour force in Turkey. More than half the surplus was used in non-essential consumption, and more than half of this was non-essential private consumption. On average, one-third of the surplus appears to have been allocated to investment. Roughly one-tenth of the surplus was transferred abroad.

Surplus analysis implies the possibility of alternative uses of resources. Under an alternative set of policies aimed at reducing the influences of the world-system, a rapid deployment of part of the surplus expended on non-essential consumption and the wasteful expenditure labelled as investment could be achieved. There is no reason why, taking the proper measures (e.g., restrictions on or taxation of the production and importation of luxury goods, restrictions on consumer credit, moral suasion), saving out of the disposable surplus cannot be raised from the average 35% to 60–70%. This would roughly correspond to a rise in Turkey’s current saving rate (in GDP) of a little over 20% to levels comparable with those attained in East Asia. Such a saving effort could facilitate a rise in the rate of productive fixed capital formation, and the rate of growth in labour productivity and incomes.

However, an alternative set of genuine development policies could not realise a rapid reduction of the drain abroad. One could certainly reduce the downward pressure on the lira by preventing uses of foreign exchange that do not serve the national development objective. But reducing the drain would also necessitate a period of sustained and consistent efforts to expand into higher technology sectors, undertake research and development, innovate, undertake product differentiation, reduce producers’ dependence on foreign-controlled commodity chains etc. To achieve these, the government would have to apply selective industrial policies and to socialise some part of the costs and risks involved.

But, the prospects for initiating any of the development policies mentioned above are dim, as the world-system (working through international trade agreements such as TRIMs, TRIPs, GATS and the Agreement on Subsidies and Countervailing Measures) proscribes the implementation of such policies.

To sum up, it emerges that in some underdeveloped social formations such as Turkey, surplus analysis need not focus on its distribution among social classes, but should rather concentrate on the incentives and constraints that determine its allocation between non-essential consumption, investment and drain abroad. Further research may develop alternative methods for estimating essential consumption and may refine the estimation of unrequited resource transfers to the centre of the world-system. More work on surplus estimation in underdeveloped countries and comparative studies on its use among countries may enhance our understanding of the real burning problem of the greater part of mankind—the reproduction of the periphery in the world-system.

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Appendix

Calculation of the drain of surplus abroad

Let $X_{US}$ be the Turkish lira value of exports to the US, $e$ the dollar exchange rate of the Turkish lira, $p_{US}$ the dollar price of a representative basket of goods and services in the US, and $p$ the lira price of the same basket in Turkey. The purchasing power parity $P$ is equal to $p/p_{US}$. $X_{US}/e$ is the actual dollar earnings of exports to the US. $X_{US}/P$ is the dollar value of exports calculated with the purchasing power parity, i.e., the value of the exported goods in the US. The loss in dollar earnings in exports to the US is $X_{US}/P - X_{US}/e$. This foreign exchange loss corresponds to a loss of real imports (number of baskets) amounting to $(X_{US}/P - X_{US}/e)/p_{US}$. Converted into liras at the domestic price of the basket in Turkey, this is equal to $(X_{US}/P - X_{US}/e)p_{US}/p_{US} = X_{US}(1-P/e)$.

The purchasing power parities and dollar exchange rates of the currencies of Germany, France, Italy and the UK (Turkey's major trading partners in the OECD) given in OECD (1998) show that the exchange rates of these countries do not tend to diverge from their purchasing power parities by large margins for extended periods. Indeed, the average distortion factor (exchange rate/purchasing power parity) over 1980–96 for Germany was 0.89, for France 0.95, for Italy 1.11 and for the UK 1.05. Hence we base our calculation of the drain to the OECD on the simplifying assumption that the distortion factor for all of Turkey's OECD trading partners is equal to one. Accordingly, the source of the surplus is calculated as $NDP + M - X + X_{OECD}(1 - P/e)$ in Turkish liras. The surplus is then $NDP + M - X + X_{OECD}(1 - P/e) - C_{ess}$. On the surplus disposal side, we have $C_{non-ess} + I + X_{OECD}(1 - P/e)$, which is the sum of non-essential consumption, net investment and the part of surplus transferred abroad.