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DOMESTIC SAVING, CURRENT ACCOUNTS, AND  
INTERNATIONAL CAPITAL MOBILITY

by

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This paper examines the Feldstein-Horioka proposition that over the medium run variations in a country's domestic saving rate are reflected almost exclusively in offsetting movements in domestic investment rather than in the country's current account. Data on 23 OECD countries for the four OECD business cycles during the period 1963-1981 are used to investigate this proposition. The evidence presented in this paper is inconsistent with the Feldstein-Horioka proposition; that is, there appears to be a substantial degree of medium-term net international capital mobility. Nevertheless, it is found that over long periods of time average current accounts tend to be fairly small in absolute value. Some possible explanations of this phenomenon are presented and policy implications are discussed.

Domestic Saving, Current Accounts  
and International Mobility

Gerard Caprio, Jr., and David H. Howard\*

Board of Governors of the Federal Reserve System

I. INTRODUCTION

In an important paper, Feldstein and Horioka challenge the commonly held view that there is a high degree of capital mobility between countries. In a later paper, Feldstein further elaborates and refines this challenge. Feldstein and Horioka argue that in a world in which there is perfect international capital mobility there should be no correlation between a particular country's domestic saving and domestic investment rates. Domestic saving is assumed to be determined by a variety of factors -- including demographic characteristics, time preference, and income distribution -- while domestic investment is determined independently by rates of return. Each country faces a perfectly elastic supply of capital at the world interest rate. In such a world, a change in a country's domestic saving rate has no effect on its domestic investment rate and, similarly, changes in domestic investment do not influence domestic saving; instead, with perfect capital mobility, such changes are reflected in the country's balance of payments. Feldstein and Horioka present empirical evidence that purports to refute the view that capital is highly mobile across national borders. Their evidence seems to indicate that there is a substantial -- indeed nearly perfect -- correlation between a country's domestic saving and domestic investment rates over the medium run. [Feldstein and Horioka concede that there may be a short-run or cyclical

role for international capital flows in insulating domestic investment (saving) from cyclical variations in domestic saving (investment).]

The present paper reviews the relevant literature on the Feldstein-Horioka proposition that there is no (net) international capital mobility (that is, net foreign investment) and then examines the empirical evidence. Data on OECD countries are used and the unit of observation chosen is an OECD business cycle, of which there are four in the sample period used in this study -- 1963-1981. The medium run is defined in this study to mean from one business cycle to the next, that is, two full business cycles -- a time span of nine years, on average. It is found that the Feldstein-Horioka proposition is not correct: there appears to be a significant degree of net international capital mobility in the medium run. However, the evidence presented in this paper also indicates that net international capital is not perfectly mobile. The point estimate reported here is that, on average, about half of a change in a country's domestic saving rate from one OECD business cycle to the next has been associated with movements in its current account. In the final section of the paper some policy implications are presented.

## II. Review of the Literature

In order to assess the degree of net international capital mobility Feldstein and Horioka estimate an equation of the form:

$$I/Y = \alpha + \beta(S/Y) + e ,$$

where I, Y, and S are, respectively, gross domestic investment, GDP, and gross domestic saving in a particular country; e is an error term. This equation is estimated for 16 OECD countries over the 1960-1974 period and various sub-periods. Each country's average ratios for the entire period or sub-period examined are taken to be one observation. In taking averages over a number of years the authors are attempting to abstract from cyclical influences. In recognition of the endogeneity of the domestic saving ratio, Feldstein and Horioka estimate some equations using a two stage least squares method. Expression of the variables in ratio form makes it likely that e is homoskedastic.

Feldstein and Horioka find a value of  $\beta$  that is not statistically different from unity. In contrast, according to the authors, the hypothesis of perfect (net) international capital mobility implies of value of zero for  $\beta$ . They state (p. 317) that "the statistical estimates indicate that nearly all of incremental saving remains in the country of origin." In his later paper, Feldstein states (pp. 130-131): "it is reasonable to interpret the Feldstein-Horioka findings as evidence that there are substantial imperfections in the international capital market and that a very large share of domestic savings tends to remain in the home country." Anticipating the

criticism that international capital mobility has increased over time, especially in the last half of the 1970s, Feldstein extends the sample through 1979. Although he finds most of the OECD countries running current account deficits in the 1975-1979 period, the estimated value of  $\beta$  remains large. In fact, the value of  $\beta$  seems to be growing over time.<sup>1/</sup>

It is difficult to interpret the estimates of a Feldstein-Horioka equation without a structural model because many factors could be, and probably were, responsible for the historical experience recorded in the data. However, contrary to Feldstein, it does not seem reasonable to interpret estimates of a large and statistically significant value for  $\beta$  as evidence of "substantial imperfections" in international capital markets. Observers of the large volume of (gross) international capital flows tend to conclude that capital is quite mobile across national borders and that, with the gradual dismantling of exchange and capital controls in recent years, such mobility has increased. Feldstein mentions the high degree of mobility of short-term funds and the substantial level of gross flows of long-term capital. Given these flows, it is likely that any link between domestic saving and domestic investment is attributable not to barriers to mobility but instead to other factors, none of which is included in the Feldstein-Horioka equation. Moreover the existence of massive gross capital flows makes it important to remember the qualifying term "net" in the discussion of the Feldstein-Horioka proposition. The question in this literature is about net capital flows and net international capital mobility. In other words, the question concerns the economic role of net foreign investment.

As an example of an omitted factor, Tobin, Westphal, and Earle and Summers have suggested that the empirical regularity underlying the Feldstein-Horioka finding may reflect government policy. Governments, when faced with a growing current account imbalance, may very well adopt macroeconomic policies designed to eliminate the imbalance. Such behavior could be attributable to concern about either the current account itself or the exchange rate. Another omitted factor might involve risk considerations: domestic residents simply may be unwilling to take open positions in foreign assets. (See Harberger for a discussion of the role of risk factors as an explanation of the Feldstein-Horioka result.)

In two recent papers concerning theoretical and empirical aspects of the current account behavior of OECD countries, Sachs argues that persistent current account imbalances can be expected between countries with similar tastes but unequal marginal productivities of capital or between countries with similar technologies but differing intertemporal consumption preferences. He states that the former seems to be the case when one compares small and large OECD countries. (The small OECD countries tended to run persistent current account deficits in the 1960s and 1970s while recording domestic investment to GNP ratios several percentage points above those of the large OECD countries.) Sachs presents some estimated equations in which investment ratios appear to explain a considerable amount of OECD current account developments. Such a result, of course, directly contradicts the Feldstein-Horioka proposition. However, Sachs' approach suffers from

drawbacks similar to those of the Feldstein-Horioka equation. Such equations do not help in identifying underlying economic behavior. Furthermore, Penati and Dooley estimate the Sachs equations for 19 OECD countries over various periods and find that the estimated coefficients are unstable and are sensitive to the choice of countries in the sample.

In the simple framework used in the literature concerning the Feldstein-Horioka proposition, questions about economic causality cannot be addressed. Structural explanations for the empirical regularity that is behind the results derived by Feldstein, Horioka, and others must await more elaborate investigations. However, there is still scope for further examination of this empirical regularity. The extent to which variations in domestic saving historically have been associated with variations in domestic investment and/or a country's current account in the medium term is a useful piece of information. As a "stylized fact" this information can help guide the development of macroeconomic analysis. It is, of course, an empirical question. In addition, it is a question of degree: it would be surprising to find that fluctuations in domestic saving have been associated exclusively either with fluctuations in domestic investment or with changes in the current account.

### III. Accounting Framework

A country's current account (CA), or net lending to the rest of the world, is defined to be the difference between its domestic saving (S) and domestic investment (I). That is,

$$(1) \quad CA \equiv S - I.$$

The right-hand side of equation (1) can be decomposed into the government budget deficit and the difference between the private sector's domestic saving and investment. Thus,

$$(2) \quad CA \equiv (T - G) + (S_p - I_p),$$

where T represents taxes, G represents government expenditures, and the subscript p denotes the private sector.

As discussed in the preceding section, the Feldstein-Horioka proposition is that there is no systematic relationship between fluctuations in domestic saving and changes in a country's current account other than a short-term cyclical relation that in effect insulates domestic investment (saving) to some extent from the cyclical vagaries of domestic saving (investment). Taking the business cycle as the period of observation, the Feldstein-Horioka proposition can be expressed as:

$$(3) \quad \Delta CA / \Delta S = 0.$$

The competing proposition, generally referred to in this literature as the "capital mobility" hypothesis, is:

$$(4) \quad \Delta CA / \Delta S > 0.$$

The expanded accounting framework in equation (2) can be used to examine some of the implications of the Feldstein-Horioka proposition. From equation (2) one can obtain:

$$(5) \quad \Delta CA / \Delta S \equiv [\Delta(T-G) / \Delta S] + (\Delta S_p / \Delta S) - (\Delta I_p / \Delta S).$$

The various empirical tests that have been reported in the literature and which are discussed in the preceding section have been interpreted as confirming the Feldstein-Horioka proposition, that is, equation (3). In discussing the policy implications of this result, the implicit interpretation usually is that private domestic saving equals private domestic investment and that there is no (net) private international capital mobility. In other words, the presumption has been that the result holds because  $\Delta I_p = \Delta S_p$ . However, the existence of the  $[\Delta(T-G) / \Delta S]$  term in equation (5) means that even if there were perfect capital mobility, that is, even if  $\Delta I_p = 0$ , equation (3) could hold if the fiscal authorities acted to stabilize economic activity by taking steps to offset variations in private saving behavior or, indeed, if they used fiscal policy to achieve a fixed current account target (as suggested by Tobin, Westphal, and Earle and Summers). In either case, an empirical result consistent with equation (3) would be attributable

to a government policy reaction function rather than to a lack of private capital mobility. Since in many countries the fiscal authorities have been concerned with correcting unwelcome fluctuations in private sector demand and current account balances, it is not clear that the usual conclusion about the lack of capital mobility which is drawn in this literature is warranted. Furthermore, the empirical evidence reported in the present paper casts doubt on the basic Feldstein-Horioka proposition that fluctuations in domestic saving between business cycles are not offset significantly by international capital flows.

Equations (3) and (4) suggest a convenient and extremely simple method of testing the Feldstein-Horioka proposition: compute the average  $\Delta(CA/Y)/\Delta(S/Y)$  for a sample of countries and business cycles and test its statistical significance. [The current account and domestic saving are normalized on nominal GDP (Y) in order to avoid spurious correlation attributable to price inflation and real growth.] Such a test can be expressed as a regression equation:

$$(6) \quad \Delta(CA/Y)/\Delta(S/Y) = \mu + e ,$$

where  $\mu$  is the average of  $\Delta(CA/Y)/\Delta(S/Y)$  and  $e$  is an error term. Equation (6) has some attractive features: the business cycle is used as the period of observation; there are no endogenous right-hand side variables; and  $e$  is very likely to be homoskedastic. The Feldstein-Horioka proposition is that  $\mu$  equals zero. The (net) capital mobility proposition is that  $\mu$  is greater than zero. Perfect (net) capital mobility implies a value of unity for  $\mu$ .

#### IV. Data

In this study the experiences of 23 OECD countries during the period 1963-1981 are examined using annual data. Two OECD countries are omitted: Luxembourg is omitted because it is part of a monetary union with a much larger country (Belgium) and the interpretation of capital flows in such a case is not straightforward<sup>2/</sup>; Yugoslavia is omitted because the requisite data are not available. The period 1963-1981 includes four complete OECD business cycles: 1963-1966, 1967-1970, 1971-1974, and 1975-1981. The timing of the OECD business cycles is based on the OECD publication, Historical Statistics, in which the percentage deviations from trend for total OECD GDP are plotted (OECD, 1983a, p. 146). In this chart business cycle troughs in 1963, 1967, 1971, 1975, and 1982 can be identified.<sup>3/</sup> For present purposes a business cycle is defined to start the year in which there is a trough and end the year preceding the year in which the next trough occurs. The actual data used in this study are taken from another OECD publication, National Accounts. Most of the data are from the 1984 edition of National Accounts (OECD, 1984) but for some countries the 1983 edition (OECD, 1983b) is used in order to obtain consistent series. In some cases OECD estimates are used to adjust for breaks in the series. The data in National Accounts are presented on a U.N. System of National Accounts (SNA) basis. The accounts of all but three of the countries are on the present SNA basis; those of Greece, Iceland, and Switzerland are on the former SNA basis. The data are for calendar years except for Australia and New Zealand where they are for fiscal years. Gross domestic product in purchasers' values at current prices is specified to be Y; finance of gross accumulation is S; and net lending to the rest of the world is CA.

In Table 1 average current account and domestic saving ratios for the period 1963-1981 are presented. There are two noteworthy features of Table 1. First, the average current account to GDP ratios for the OECD countries tend to be fairly small numbers in absolute value, especially for the major countries. In other words, current accounts over this particular period tended to cumulate to zero. Second, there seems to be little if any connection between the relative domestic saving performance of a country and the relative strength of its current account. (The rank correlation between the current account and domestic saving ratios reported in Table 1 is 0.20.) The empirical investigations of Feldstein, Horioka, and others bring out these two features of the data in various ways and lead the investigators to the conclusion that there is no significant medium-term net capital mobility across national borders. This explanation of the data as well as other explanations are discussed in a preceding section of this paper.

These two features of the data in Table 1 are interesting and merit investigation. However, it is also interesting that further scrutiny of the data that are used to construct Table 1 reveals a significant amount of medium-term net international capital mobility.<sup>4/</sup> Data for selected countries during the four OECD business cycles during the 1963-1981 period are presented in Table 2. The countries selected are those in which there was a change in the domestic saving ratio of at least one percentage point in absolute value from one business cycle to the next. (Small changes in saving ratios are eliminated for arithmetic reasons; the actual choice of one percentage point as the cutoff is arbitrary.) The righthand column in Table 2 contains the data that are used in this paper's empirical tests. The formal tests are discussed in the next section, but at this point it is interesting to note that there

Table 1

Current Account and Domestic Saving Ratios: 1963-1981

	<u>Current Account to GDP Ratio</u>		<u>Domestic Saving to GDP Ratio</u>	
	<u>Average (Percent)</u>	<u>Rank</u>	<u>Average (Percent)</u>	<u>Rank</u>
Japan	0.5	4	34.9	1
Switzerland	1.7	1	29.7	2
Austria	-0.7	11	27.5	3
Norway	-3.0	21	26.9	4
Portugal	-2.0	15	25.7	5
Netherlands	0.5	3	24.9	6
Germany	0.5	5	24.9	7
Iceland	-3.3	22	24.9	8
Finland	-1.9	14	24.6	9
Greece	-2.4	18	24.3	10
France	-0.5	9	24.1	11
Australia	-2.1	16	23.8	12
New Zealand	-2.7	19	22.8	13
Italy	0.6	2	22.6	14
Spain	-1.0	12	22.6	15
Sweden	-0.6	10	22.5	16
Canada	-1.1	13	22.3	17
Belgium	-0.2	7	22.3	18
Denmark	-2.8	20	20.7	19
Ireland	-4.4	23	20.7	20
United States	0.2	6	19.4	21
United Kingdom	-0.2	8	18.7	22
Turkey	-2.2	17	17.3	23

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Table 2

Selected Data on Current Account and Domestic Saving Ratios

Panel A

	<u>1963-1966 Cycle</u>		<u>1967-1970 Cycle</u>		<u><math>\Delta(CA/Y)/\Delta(S/Y)</math></u>
	<u>Average (Percent)</u>		<u>Average (Percent)</u>		
	<u>CA/Y</u>	<u>S/Y</u>	<u>CA/Y</u>	<u>S/Y</u>	
Japan	0.13	33.75	0.69	37.94	0.134
Switzerland	-1.46	29.79	1.96	31.41	2.111
Portugal	-0.73	24.49	2.72	28.64	0.831
Iceland	-0.94	26.58	-3.98	23.36	0.944
Finland	-1.85	22.72	-0.75	24.65	0.570
New Zealand	-1.26	23.64	-0.84	21.79	-0.227
Sweden	-0.21	25.79	-0.50	24.32	0.197
Belgium	-0.18	22.80	1.23	24.55	0.806
Denmark	-1.65	23.43	-2.92	21.99	0.882
Ireland	-3.06	18.55	-2.19	20.76	0.394
United States	0.75	20.20	0.19	19.03	0.479
Turkey	-1.73	14.11	-0.85	17.34	0.272

Panel B

	<u>1967-1970 Cycle</u>		<u>1971-1974 Cycle</u>		<u><math>\Delta(CA/Y)/\Delta(S/Y)</math></u>
	<u>Average (Percent)</u>		<u>Average (Percent)</u>		
	<u>CA/Y</u>	<u>S/Y</u>	<u>CA/Y</u>	<u>S/Y</u>	
Austria	0.16	28.14	-0.16	30.43	-0.140
Portugal	2.72	28.64	1.23	31.15	-0.594
Iceland	-3.98	23.36	-5.38	24.77	-0.993
Finland	-0.75	24.65	-2.77	27.46	-0.719
Greece	-3.20	21.66	-2.46	28.18	0.113
Australia	-2.52	24.76	-0.23	25.97	1.893
New Zealand	-0.84	21.79	-2.65	24.95	-0.573
Italy	2.28	23.71	-0.79	22.24	2.088
Spain	-0.79	23.54	0.14	24.90	0.684
Denmark	-2.92	21.99	-2.09	23.13	0.728
Turkey	-0.85	17.34	-0.10	19.75	0.311

Panel C

	<u>1971-1974 Cycle</u>		<u>1975-1981 Cycle</u>		<u><math>\Delta(CA/Y)/\Delta(S/Y)</math></u>
	<u>Average (Percent)</u>		<u>Average (Percent)</u>		
	<u>CA/Y</u>	<u>S/Y</u>	<u>CA/Y</u>	<u>S/Y</u>	
Japan	0.91	37.60	0.32	32.35	0.112
Switzerland	0.62	32.33	3.88	27.12	-0.626
Austria	-0.16	30.43	-1.76	25.33	0.314
Norway	-2.67	27.99	-5.10	25.99	1.215
Portugal	1.23	31.15	-7.16	21.46	0.866
Netherlands	2.26	27.54	0.51	21.38	0.284
Germany	1.12	26.14	-0.06	21.83	0.274
Finland	-2.77	27.46	-2.01	23.96	-0.217
Greece	-2.46	28.18	-1.61	25.49	-0.316
France	-0.45	25.42	-0.70	22.19	0.077
Australia	-0.23	25.97	-2.82	21.35	0.561
New Zealand	-2.65	24.95	-1.50	21.55	0.544
Spain	0.14	24.90	-1.71	20.61	0.431
Sweden	1.02	23.70	-1.92	18.81	0.601
Canada	-0.20	23.00	-1.84	21.60	1.171
Belgium	1.91	25.11	-2.14	19.08	0.672
Denmark	-2.09	23.13	-3.68	17.00	0.259
Turkey	-0.10	19.75	-4.53	17.57	2.032

Note: See text for the criterion used to select the data.

are very few negative entries in the column. Only nine -- 22 percent -- of the entries are negative, whereas the Feldstein-Horioka proposition would lead one to expect that there would be approximately as many negative as positive values for  $\Delta(CA/Y)/\Delta(S/Y)$ . (In the full sample -- that is, including countries with negligible changes in their domestic saving ratios -- 36 percent of the entries are negative.)

Panel C of Table 2 is particularly interesting because of the dramatic changes in domestic saving ratios which took place between the 1971-1974 cycle and the 1975-1981 cycle. The oil and commodity price shocks of 1973-1974 adversely affected the terms of trade and consumption standards of the OECD countries. The reaction in nearly all of these countries was a significant reduction in the saving ratio. In almost every instance, the reduction in domestic saving was not matched fully by changes in domestic investment, but rather was accompanied by a weakening in the current account balance. The negative swing in the current account reflected an inflow of foreign capital that softened the impact of the change in domestic saving on domestic investment. Thus, during this particularly turbulent eleven year period, net international capital mobility was very much an important factor in determining the pace and nature of economic activity in the OECD countries. Panels A and B of Table 2 indicate that in less turbulent times international capital flows also appear to play an important role as a buffer between changes in domestic saving rates and changes in domestic investment rates.

## V. Empirical Results

Table 3 reports the averages and standard errors of the averages of the  $\Delta(CA/Y)/\Delta(S/Y)$  data that are presented in Table 2. In all time periods examined in this study the average  $\Delta(CA/Y)/\Delta(S/Y)$  is positive, although in the period covering the 1967-1970 to 1971-1974 cycles (Panel B) the average is not statistically significant. For all 41 observations, the average is 0.450, with a standard error of 0.115, which is statistically significant. Thus, the experience of the OECD countries during the 1963-1981 period indicates that only about half of any change in domestic saving rates was matched by changes in domestic investment in the medium term. The other half of the change in domestic saving was associated with an international capital flow. It appears that contrary to the conclusions of Feldstein, Horioka, and others there is a large degree of net medium-term capital mobility in the world economy. However, it also appears that the degree of capital mobility is somewhat less than "perfect": the average  $\Delta(CA/Y)/\Delta(S/Y)$  is significantly less than unity as well as significantly greater than zero.

A similar exercise using data for  $\Delta(CA/Y)/\Delta(I/Y)$  yields an average value of -0.085, which is not statistically significant. Thus it would appear that for the 1963-1981 period taken as a whole, fluctuations in domestic saving rates were more systematically associated with current account developments than were variations in domestic investment rates. (See Fischer's comments on Sachs' earlier paper, p. 278.) The relative magnitude of fluctuations in saving and investment can be obtained by pooling all 69 observations of  $\Delta(S/Y)$  and  $\Delta(I/Y)$  in the sample. The average values for  $\Delta(S/Y)$  and  $\Delta(I/Y)$  were -0.62 and -0.27 (percentage points), respectively, while their standard

Table 3

Summary Statistics for  $\Delta(CA/Y)/\Delta(S/Y)$

	<u>Average</u>	<u>Standard Error of the Average</u>	<u>Observations</u>
Table 2: Panel A	0.616	0.170	12
Table 2: Panel B	0.254	0.310	11
Table 2: Panel C	0.459	0.145	18
Table 2: All Panels	0.450	0.115	41

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deviations were 2.89 and 2.50, respectively. The average absolute values of  $\Delta(S/Y)$  and  $\Delta(I/Y)$  were 2.15 and 1.89, respectively. Thus, during this sample period, saving rates were somewhat more volatile than were investment rates.

For the full sample --that is, all 69 observations -- a regression of  $\Delta(I/Y)$  on  $\Delta(S/Y)$  results in:

$$(7) \quad \Delta(I/Y) = 0.634 [\Delta(S/Y)].$$

(0.069)

Contrary to the Feldstein-Horioka proposition, the estimated coefficient is statistically less than unity.

It is interesting to note that the conclusion about international capital mobility reported in this study does not differ from that of Feldstein, Horioka, and others simply because of the different time periods and set of countries used. In Table 4, estimates of the basic Feldstein-Horioka equation for various time periods are reported using the same underlying data that are used for Tables 1-3 in this paper. As is readily seen the estimates essentially are the same as those reported by Feldstein, Horioka, and others -- the estimated  $\beta$  is close to unity. Taken at face value, the estimates in Table 4 indicate that the level of a country's domestic saving rate does not have much of an influence on its current account position. (As already noted, the data reported in Table 1 of the present paper confirm this point.) The empirical evidence presented in Tables 2 and 3 and equation (7), on the other hand, indicate that changes in domestic saving rates from one business cycle to the next may well have had an important influence on OECD current accounts in recent years.

Table 4

Estimates of Feldstein-Horioka Equation:  $I/Y = \alpha + \beta(S/Y)$

<u>Period</u>	<u><math>\alpha</math></u>	<u><math>\beta</math></u>	<u><math>R^2</math></u>
1963-1981	4.11 (2.07)	0.88 (0.09)	0.83
1963-1970	3.26 (1.59)	0.89 (0.06)	0.90
1971-1981	4.15 (2.75)	0.89 (0.12)	0.74
1963-1966	2.74 (1.45)	0.93 (0.06)	0.92
1967-1970	4.52 (1.95)	0.83 (0.08)	0.84
1971-1974	3.75 (2.50)	0.88 (0.10)	0.80
1975-1981	6.04 (3.32)	0.82 (0.15)	0.59

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Note: Sample size is 23; standard errors are in parentheses.

It should be noted that when Feldstein and Horioka estimate a regression of the change in the investment rate on the change in the saving rate, they obtain (p. 327):

$$(8) \quad \Delta(I/Y) = 0.2 + 0.724 [\Delta(S/Y)],$$

(0.4) (0.158)

where the units of the intercept term have been converted to be comparable with the units used in this study. Feldstein and Horioka interpret the estimated slope coefficient as being consistent with their other findings of no net international capital mobility. It is not clear why Feldstein and Horioka include an intercept term in equation (8) and their time periods -- 1960-1969 and 1970-1974 -- do not coincide with business cycles. In equation (7) of the present paper, an intercept is not included and the OECD business cycle is taken as the unit of observation. The resulting estimated slope coefficient indicates even more net international capital mobility than is implied by equation (8).

## VI. Conclusion

This paper examines the Feldstein-Horioka proposition that over the medium run variations in a country's domestic saving rate are reflected almost exclusively in offsetting movements in domestic investment rather than in the country's current account. Data on 23 OECD countries for the four OECD business cycles during the period 1963-1981 are used to investigate this proposition. The evidence presented in this paper is inconsistent with the Feldstein-Horioka proposition; that is, there appears to be a substantial degree of medium-term net international capital mobility.

Nevertheless, it remains true that over long periods of time -- for example, the 19-year period reported in Table 1 -- average current accounts tend to be fairly small in absolute value. Some possible explanations of this phenomenon are mentioned in a preceding section. For macroeconomists and policy makers it is important to understand why current accounts tend to cumulate to zero in the long run. If, for example, the phenomenon reflects a government policy of targeting on the current account, where the target value is something small, then a change in policy regime can make this past experience irrelevant and there can be no presumption that current accounts necessarily will be balanced even in the long run. Thus, current account developments -- particularly those that appear to be connected with switches in macroeconomic policy regimes -- cannot be assumed to be transitory just because in the past such developments have tended to cancel out over time. Further research into the economic determinants of domestic saving, domestic investment, and the current account are necessary before one can assess the nature of and proper policy response to a particular movement in the current account.

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Footnotes

- \*/ This paper represents the views of the authors and should not be interpreted as reflecting the views of the Board of Governors of the Federal Reserve System or other members of its staff. We would like to thank Doug Bell for his help with the data and computations and our colleagues in the International Finance Division for their helpful comments and suggestions.
- 1/ Penati and Dooley, using a somewhat different sample, also find a larger value for  $\beta$  in the 1970s. In another extension of the Feldstein-Horioka study, Fieleke examines the experience of 87 countries -- including 69 non-industrial countries -- and finds evidence that is consistent with the Feldstein-Horioka results.
- 2/ Note that in some of the other studies in this literature Luxembourg is viewed as a troublesome outlier.
- 3/ The identification of the 1982 trough requires some estimation.
- 4/ As mentioned in a preceding section, in this study "medium-term" is taken to mean from one business cycle period to the next. This definition of the medium term seems to be consistent with that used in the literature on the Feldstein-Horioka proposition.