

Emerging Equity Markets and Economic Development

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Abstract

We provide an analysis of real economic growth prospects after financial liberalizations. In contrast with previous research, we identify the financial liberalization dates of a number of countries and examine the influence of liberalizations while controlling for a number of other macroeconomic and financial variables. Our work also introduces an econometric methodology that allows us to use extensive time-series as well as cross-sectional information for our tests. We find across a number of different specifications that financial liberalizations are associated with significant increases in real economic growth.

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1 Introduction

We provide new evidence on the relation between financial market liberalizations and economic growth. We find that average real economic growth increases between 1 and 2% per annum after a financial liberalization. This result is robust across a number of different sample specifications and economic approaches. This result, of course, reveals no causality. However, even after we control for large set of macroeconomic and financial variables, our financial liberalization indicator retains significance. The most obvious channels through which liberalization operate are a reduction in the cost of capital or an improvement in growth opportunities. We find that some but not all of this liberalization effect can be accounted for by these effects.

There is a substantial literature that tries to explain the cross-sectional determinants of economic growth. Barro (1991) and Barro and Sala-i-Martin (1995) explore the ability of a large number of macroeconomic and demographic variables to explain the cross-sectional characteristics of economic growth rates. More recent research in the growth literature has focused on the potential benefits of economic integration (the degree to which trade flows are free) and general financial development. For example, Rodrik (1999) examines the relationship between openness to trade and economic growth with a standard cross-country regression methodology. With a proxy for the general openness to trade, the evidence suggests that the relationship between economic growth and openness is statistically weak.

Following the development of endogenous growth models where financial intermediation plays a big role, there is also an interest in determining the influence of the financial sector on the cross-section of economic growth. King and Levine (1993) focus on several measures of banking development find that banking sector development is an important factor in explaining the cross-sectional characteristics of economic growth. Levine and Zervos (1998) explore the degree to which both stock market and banking sector development can explain the cross-section of economic growth rates. They find evidence in support of the claim that equity market liquidity is correlated with rates of economic growth. Additionally, they argue that banking and stock market development independently influence economic growth. They

also find that there is little empirical evidence to support the claim that financial integration is positively correlated with economic growth.

Unlike the previous work, we focus exclusively on the relation between real economic growth and financial liberalization. Our work is partially motivated by Bekaert and Harvey (2000) who examine the relation between financial liberalization and the dividend yield. While the dividend yield contains information about the cost of capital, it also houses information about growth prospects. Consequently, for countries that undergo financial liberalization, Bekaert and Harvey also examine the relationship between economic growth and liberalization at very short horizons and find a positive association.

Our work is also distinguished by the extensive use of time-series as well as cross-sectional information. Indeed, the advent of financial liberalization suggests a temporal dimension to the growth debate that is not captured by the standard cross-country estimation methodology. Typically, the growth literature focuses on either a purely cross sectional analysis or a time-series dimension that is limited to at most three time-series observations per country. We employ a time-series cross-sectional estimation methodology using the generalized method of moments (GMM). Our estimation strategy is much different from the existing literature in that we exploit the information in the overlapping time-series data; the GMM strategy can facilitate the inherent dependencies in the error structure when data are employed in this manner. Also, Levine and Renelt (1993) discuss the caution one must exercise when interpreting cross-country regressions. They demonstrate that the estimated coefficients are extremely sensitive to the conditioning variables employed. For this reason, we consider a variety of different specifications and samples.

2 Financial Liberalization and Economic Growth

Our empirical design is to explore the relation between real per capita GDP growth over various horizons and an indicator of official financial liberalization. The data are at the annual frequency from 1976 through 1997. For the emerging equity markets that liberalize in our sample, we provide the official liberalization date in the data appendix. The developed

economies are assumed to have been liberalized throughout the sample, with the exception of Japan (see the appendix). Additionally, the economies for which we have no equity market data are assumed to be financially segmented.

The set of variables that control for variation in economic growth rates across countries not accounted for by equity market liberalization fall into four categories: macroeconomic influences, banking development, equity market development, and foreign exchange and political risk. More detailed information on the control variables, including data sources, are contained in the data appendix.

The first set of variables are linked to the condition and stability of the macroeconomy: government consumption divided by GDP, the size of the trade sector divided by GDP, and the annual rate of inflation. Barro and Sala-i-Martin (1995) argue that government consumption divided by GDP proxies for political corruption, nonproductive public expenditures, or taxation. Levine and Zervos (1998) and Bekaert and Harvey (2000) employ the size of the trade sector as imports plus exports divided by GDP. This variable is employed as a measure of the openness of the particular economy to trade. Finally, Barro (1997) provides evidence suggesting a negative relationship between inflation and economic activity.

Following the evidence presented in King and Levine (1993), we include a control variable for the relationship between development in the banking sector and economic growth. In this capacity, we employ private credit divided by gross domestic product. King and Levine (1993) argue that this measure of banking development isolates the credit issued by private banks, in contrast to that issued by a central bank. Furthermore, Levine and Zervos (1998) provide evidence that the effects banking sector and stock market development have upon economic growth are separate and they use that variable to capture banking sector development.

The focus of this paper is on the relation between economic growth and equity market liberalization. We examine four variables: a measure of equity market size, the log of the number of companies covered by the equity market index, the volatility of the equity market total return, and the dividend yield.

Both Bekaert and Harvey (1997) and Levine and Zervos (1998) use the ratio of the equity

market capitalization to gross domestic product as a measure of the size of the local equity market. Large markets relative to the size of the economy in which they reside potentially indicate market development. Bekaert and Harvey (2000) employ the log of the number of companies as a measure of market concentration. Levine and Zervos (1998) provide evidence for a strong relationship between economic growth and stock market liquidity, where the latter is measured as either market turnover or the value traded divided by GDP; however, data availability for these variables is limited and as a result they are not included. The measure of stock market volatility is constructed using a GARCH(1,1) (see Engle (1982) and Bollerslev(1986)) model. Following Bekaert and Harvey (1997), this variable is included given the interest in the relationship between volatility, liberalization, and growth. Also, the local volatility may be viewed as measure of cost of capital in segmented equity market. The pre-estimation of this variable is documented in the data appendix. Finally, we include the dividend yield. The dividend yield is intimately related to both the prevailing cost of capital and growth opportunities. For example, to facilitate the lower cost of capital following market opening, assuming the marginal investor is now the international investor (viewing these shares as a diversification tool), the equity price will rise, thus the dividend yield will fall. Additionally, the liberalization may generate a higher level of growth, which will also result in a large equity market price and a lower dividend yield.

Finally, we consider two additional control variables. First, we include a three-year moving window of standard deviation on the log changes in the foreign exchange per U.S. dollar. Also, we include the Institutional Investors country credit rating. Erb, Harvey, and Viskanta (1996) find that the credit measure has a high correlation with more direct measures of political risk that are available over shorter period.

2.1 Summary statistics

Table 1 describes the four samples that we employ in estimation. Sample I includes annual observations on the 17 Morgan Stanley Capital International (MSCI) markets as well as the 9 International Finance Corporation (IFC) for which there are full samples extending from 1977 to 1997. Including Ireland and South Africa, the total number of countries examined

in Sample I is 28. In contrast, Sample II includes annual observations from 1986 through 1997. Seven additional IFC markets with inclusion dates after 1977 are added to the 28 economies considered in Sample I, for a total of 35. Sample III includes annual observations from 1989 to 1997. The sample adds several MSCI and IFC markets with inclusion dates following 1986. In addition, Sample III contains 10 economies with small equity markets considered “frontier” by IFC, i.e. the equity markets are too small to be included in the standard IFC-Global indices. In total, Sample III contains 50 economies. Finally, Sample IV contains 95 countries for which we have macroeconomic data from 1977 through 1997. For many of these economies, no equity market data are available; however, an official liberalization indicator is constructed for all countries. This additional sample allows us to explore the relationship between financial liberalization and economic growth by incorporating the information housed in the many economies for which no equity market data are available despite the lack of financial data.

Table 2 presents the summary statistics for the macro economic variables. This includes average real per capita GDP growth rates across the 95 countries in our sample across three decades. For this variables, we provide means over the 1970s, 1980’s, and 1990’s, as well as the full sample. The average growth rates differ substantially across time for many of the economies considered. Additionally, the rates of economic growth vary widely across the economies included. This paper focuses on the extent to which the time-series and cross-sectional differences can be explained by differing states of financial liberalization of the equity market.

For the particular economies that undergo financial liberalization in our sample, Figure 1 presents evidence on the rates of economic growth both before and after the official liberalization date. Of the 21 economies that undergo financial liberalization in sample, 16 exhibit larger average GDP growth rates after the official liberalization dates. While this evidence implies no causality, it motivates the exploration of the relationship between economic growth and equity market liberalization. Tables 2 and 3 present average values for the various macroeconomic and financial, respectively, control variables across these economies. As the average values of these control variables vary substantially in the cross-section, the

problem in examining the economic growth rates across these economies before and after equity market liberalization is that the differences may be related to phenomena not related to the liberalization itself, but captured by the control variables. Consequently, we include in the regression specifications a set of variables that control for variation in economic growth rates across economies and time potentially not accounted for by financial liberalizations.

3 Econometric Methodology

The primary quantity of interest is the growth rate in the real per capita gross domestic product:

$$y_{i,t+k,k} = \frac{1}{k} \sum_{j=1}^k y_{i,t} \quad i = 1, \dots, N \quad (1)$$

where $y_{i,t} = \ln(\frac{\text{GDP}_{i,t}}{\text{POP}_{i,t}} / \frac{\text{GDP}_{i,t-1}}{\text{POP}_{i,t-1}})$ and N is the number of countries in our sample. Then, $y_{i,t+k,k}$ represents the annual, k -year compounded growth rate of real per capita GDP. In the growth literature, k is often chosen to be as large as possible. Our framework differs significantly in that we use overlapping data, facilitating the employment of the time-dimension in addition to the cross-sectional.

We are interested in the following regression specification:

$$y_{i,t+k,k} = \beta' \mathbf{x}_{i,t} + \epsilon_{i,t+k,k} \quad (2)$$

for $i = 1, \dots, N$ and $t = 1, \dots, T$. Denote the independent (right-hand side) variables employed, as discussed in Section 2, as $\mathbf{x}_{i,t}$. While the error terms are serially correlated for $k > 1$, $E[\epsilon_{i,t+k,k} \otimes \mathbf{x}_{i,t}] = \mathbf{0}$. The vector $\mathbf{x}_{i,t}$ includes a country-specific constant, allowing for fixed effects. To estimate the restricted system, consider the following stacked orthogonality conditions:

$$g_{t+k} = \begin{bmatrix} \epsilon_{1,t+k,k} \otimes \mathbf{x}_{1,t} \\ \vdots \\ \epsilon_{N,t+k,k} \otimes \mathbf{x}_{N,t} \end{bmatrix} \quad (3)$$

This procedure differs from ordinary least squares, as β is restricted to be identical across all countries, resulting in a system estimation that potentially corrects for heteroskedastic-

ity across time, heteroskedasticity across countries, and correlation among country specific shocks (*seemingly unrelated regression* (SUR)).

Define $\mathbf{Z}_t$ as follows:

$$\mathbf{Z}_t = \begin{bmatrix} \mathbf{x}_{1,t} & 0 & \cdots & 0 \\ 0 & \mathbf{x}_{2,t} & \cdots & 0 \\ \vdots & & & \\ 0 & 0 & \cdots & \mathbf{x}_{N,t} \end{bmatrix} \quad (4)$$

Then, one can rewrite the orthogonality conditions in the following manner:

$$g_{t+k} = \epsilon_{t+k} Z_t \quad (5)$$

where

$$\epsilon_{t+k} = \begin{bmatrix} \epsilon_{1,t+k,k} \\ \vdots \\ \epsilon_{N,t+k,k} \end{bmatrix} \quad (6)$$

Employing this notation, the GMM (Hansen, 1982) estimator satisfies

$$\hat{\beta} = \arg \min_{\beta} \left[\left(\frac{1}{T} \sum_{t=1}^T g_t \right)' \hat{\mathbf{S}}_T^{-1} \left(\frac{1}{T} \sum_{t=1}^T g_t \right) \right] \quad (7)$$

We optimally choose the GMM weighting matrix to minimize the variance-covariance matrix of the estimated parameter vector; $\hat{\mathbf{S}}_T^{-1}$ is the estimated variance covariance matrix of $(\frac{1}{T} \sum_{t=1}^T g_t)$, taking all possible autocovariances into account:

$$\mathbf{S}_T = \sum_{j=-\infty}^{\infty} E[g_{t+k} g'_{t+k-j}] \quad (8)$$

For the case of the overlapping data ($k > 1$), the residuals follow an MA($k-1$). We consider four specifications for the weighting matrix that facilitate increasingly complex variance-covariance structures across the residuals in (2).

- Weighting Matrix I:

The most general specification facilitates temporal heteroskedasticity, cross-sectional heteroskedasticity, and SUR effects.

$$\hat{\mathbf{S}}_T = \frac{1}{T} \sum_t \mathbf{Z}_t \epsilon_{t+k} \epsilon'_{t+k} \mathbf{Z}'_t + \sum_{j=1}^K \left[1 - \frac{j}{K+1} \right] \left(\sum_{t=j+1}^T (\mathbf{Z}_{t-j} \epsilon_{t+k-j} \epsilon'_{t+k} \mathbf{Z}'_t + \mathbf{Z}_t \epsilon_{t+k} \epsilon'_{t+k-j} \mathbf{Z}'_{t-j}) \right) \quad (9)$$

In the interest of parsimony, we consider three restricted variance-covariance structures. In order to ensure the variance-covariance matrix is positive-definite, the Newey West (1987) estimator is employed. K is chosen to be large enough to ensure consistency.

- Weighting Matrix II:

This specification facilitates cross-sectional heteroskedasticity and SUR effects, but not temporal heteroskedasticity. Define $\hat{\Omega}_j$ as follows:

$$\hat{\Omega}_j = \frac{1}{T} \sum_{t=j+1}^T (\epsilon_{t+k} \epsilon'_{t+k-j}) \quad (10)$$

Then, the restricted variance-covariance matrix can be written as follows:

$$\hat{\mathbf{S}}_T = \frac{1}{T} \sum_t \mathbf{Z}_t \hat{\Omega}_0 \mathbf{Z}'_t + \sum_{j=1}^K [1 - \frac{j}{K+1}] (\sum_{t=j+1}^T (\mathbf{Z}_{t-j} \hat{\Omega}_j \mathbf{Z}'_t + \mathbf{Z}_t \hat{\Omega}_{-j} \mathbf{Z}'_{t-j})) \quad (11)$$

Given the limited number of time-series observations, this restriction may be plausible.

- Weighting Matrix III:

This specification facilitates cross-sectional heteroskedasticity, but neither temporal heteroskedasticity nor SUR effects. First, let the non-diagonal terms in $\hat{\Omega}_j$ equal zero:

$$\hat{\Omega}_j = \begin{bmatrix} \hat{\sigma}_{11,j} & 0 & \cdots & 0 \\ 0 & \hat{\sigma}_{22,j} & \cdots & 0 \\ \vdots & & & \\ 0 & 0 & \cdots & \hat{\sigma}_{NN,j} \end{bmatrix} \quad (12)$$

where $\hat{\sigma}_{ii,j}$ is defined as follows:

$$\hat{\sigma}_{ii,j} = \frac{1}{T} \sum_{t=j+1}^T (\epsilon_{i,t+k} \epsilon'_{i,t+k-j,k}) \quad (13)$$

Given the restricted form for $\hat{\Omega}_j$, let $\hat{S}_T$ be determined as in (11). If GDP growth rates across the countries in our sample are idiosyncratic, then this assumption is plausible.

- Weighting Matrix IV:

The final specification facilitates neither temporal heteroskedasticity, groupwise (country-specific) heteroskedasticity, nor SUR effects. In this case, the estimated parameters

are equivalent to those obtained from a standard pooled OLS estimation methodology. For $\hat{\Omega}_j$ defined in (12),

$$\hat{\sigma}_j^2 = \frac{1}{N} \text{trace}(\hat{\Omega}_j) \quad (14)$$

Then, define the restricted variance covariance matrix in the following manner:

$$\hat{\mathbf{S}}_T = \frac{1}{T} \sum_t \hat{\sigma}_0^2 \mathbf{Z}_t \mathbf{Z}_t' + \sum_{j=1}^K \left[1 - \frac{j}{K+1}\right] \left(\sum_{t=j+1}^T (\hat{\sigma}_j \mathbf{Z}_{t-j} \mathbf{Z}_t' + \hat{\sigma}_{-j} \mathbf{Z}_t \mathbf{Z}_{t-j}') \right) \quad (15)$$

4 Empirical Results

4.1 *No control variables*

Table 4 presents our estimates of the relation between real economic growth rates at various horizons and an official liberalization indicator without any control variables. Effectively, this is analogous to exploring the mean growth rate before and after financial liberalization, allowing for fixed effects. Consistent with the evidence on the pre and post-liberalization average growth rates presented in Section 2, these estimates demonstrate a positive and statistically significant relation between financial liberalization and economic growth across a variety of specifications and horizons.

As detailed in Table 1, we use four samples of countries in our tables: Sample I (28 countries, 1977 through 1997), Sample II (35 countries, 1986 through 1997), Sample III (50 countries, 1989 through 1997) and Sample IV (95 countries, 1977 through 1997). The exploration of the relationship between financial liberalization and economic growth across the four diverse samples also provides a robustness check.

In each case, the estimated coefficient is presented when the GMM weighting matrix is constructed as in either specification I or IV in the previous section. The first specification is the most general in that it allows for temporal and cross-sectional heteroskedasticity and SUR effects, whereas the latter is the most restricted in that it is analogous to pooled ordinary least squares. The results when the two intermediate weighting matrix specifications are employed are very similar, and not reported in the interest of space.¹ Regardless of

¹For the largest Sample IV, we present only the results using the restricted weighting matrix IV. We

weighting matrix specification, the estimated coefficient is positive and significant in nearly all cases. The evidence implies that real GDP per capita growth rates increase following financial liberalization by anywhere from .3% to as large as 1.5% per annum on average. For example, with a three-year horizon using a sample of 50 countries and weighting matrix I, the impact on real economic growth rates is 1.0%. This estimate is five standard errors from zero. The evidence presented in Table 4 suggests that on average real economic growth rates increase roughly 1% per annum following financial liberalization. Next, we present evidence on how this relation changes when additional variables are employed to control for various phenomena unrelated to the financial liberalization.

4.2 *Allowing for control variables*

The shortcoming of exploring the changes in real economic growth rates before and after financial liberalization is that the observed change may be related to various economic and political phenomena unrelated to the financial liberalization. For example, periods of financial liberalization may be contemporaneous with periods of political reform or economic restructuring. When estimating the relation between growth and financial liberalization, it is important to account for these potentially confounding effects. Consequently, we develop a hierarchical estimation strategy that evaluates the ability of incrementally increasing control groups to explain the cross-sectional *and* time-series characteristics of real economic growth.

First, we begin by estimating the relations between economic growth rates and several macroeconomic variables that are commonly employed in the literature to explain cross-sectional differences. Second, given the evidence presented in King and Levine (1993), we then add control variables which represent banking development. Third, we add equity market variables. These control variables encompass many of the variables deemed important in explaining the cross-section of economic growth rates in Levine and Zervos (1998). Finally, we add the official liberalization indicator, and reexamine the relation between financial liberalization and economic growth having controlled for unrelated effects using variables

experienced difficulty estimating this large system with the more general weighting matrix specifications.

employed frequently in the literature. We also conduct additional experiments in which we include the dividend yield; as the dividend yield reflects both the prevailing cost of capital and growth prospects, it may help to explain the channels through which financial liberalization operates.

In accordance with our tiered strategy, the first set of regressions we consider involve the use of three macroeconomic conditioning variables: government consumption as a share of GDP, the size of the trade sector as a share of GDP, and the annual inflation rate. These variables are frequently employed in the literature, and are available for the countries under consideration at the annual frequency from 1974 to the present. Government consumption and inflation potentially proxy for general macro economic instability or taxation. The size of the trade sector is frequently viewed as a measure of the general openness to trade exhibited by the particular economy. The inclusion of this variable controls for the potentially contemporaneous nature of economic and financial liberalization.

Table 5 presents evidence on the relation between these variables and economic growth across the four samples. As before, we present the evidence obtained using GMM weighting matrix specifications I and IV. While the estimated relation between these variables and real economic growth is not entirely consistent across samples and estimation specifications, several patterns do emerge. First, as in Barro and Sala-i-Martin (1995), high levels of government consumption are negatively (significantly) related to economic growth rates, suggesting that the instabilities or taxation associated with government consumption are obstacles to economic development. However, as can be seen in Panel D, this relationship is statistically insignificant for the larger Sample IV. Second, the size of the trade sector is positively and significantly related to growth prospects across the samples and estimation specifications. However, the relation is statistically weak at longer horizons. Finally, the relation between inflation and economic growth is statistically significant for several of the samples under consideration; however, the measured effect is very small from an economic perspective.

Based upon the evidence presented in King and Levine (1993), we augment the previous set of conditioning variables by including a measure of banking sector development, the

level of private credit as a share of gross domestic product. King and Levine (1993) argue that this measure of banking development isolates the credit issued by private banks, in contrast to that issued by a central bank. In Table 6, we present the estimated regressions that include this measure. First, the relation between the three macroeconomic variables and economic growth are generally unaffected by the inclusion of private credit divided by GDP. Interestingly, the relation between banking sector development and real economic growth is fairly weak. Panel A presents the estimated relationship for Sample I; across both the GMM weighting matrix specifications, the relationship is negative and statistically significant, which is in sharp contrast to the evidence presented by King and Levine (1993) and Levine and Zervos (1998). However, as can be seen in Panel D, the estimated relationship is positive and significant at longer horizons. For example, the coefficient on measured banking development is positive and seven standard errors from zero for annual real GDP growth at the 10 year horizon for Sample IV, suggesting the relation observed by King and Levine (1993) is most pronounced at longer horizons.

Levine and Zervos (1998) explore the degree to which banking and stock market development explain the cross-sectional characteristics of economic growth. They find that two measures of stock market liquidity are positively related to economic growth, and that stock market and banking development have separate effects upon growth. Additionally, they find a positive, but statistically weak, relationship between stock market size and GDP growth. The measures of liquidity that Levine and Zervos (1998) employ are not available at the annual frequency for the economies under consideration; instead, we employ the number of companies covered under the market index and the stock market size as measures of stock market development. Market size is measured as the equity market capitalization divided by GDP.

In Table 7, we present the estimated regression coefficients when we add these two measures of equity market development to the control variables presented above, including the measure of banking development. Sample IV includes a large number of countries for which we have no equity market data, hence it is excluded. As before, the estimated relation between the macro economic variables and economic growth are qualitatively unaffected by

the inclusion of the two equity market variables. Additionally, the measure of banking development is negatively, but weakly, related to growth. The coefficient on equity market size is generally positive. In Panel A, the estimated coefficient on market size for Sample I is positive and 6.7 standard errors from zero for weighting matrix specification I. However, the relationship is statistically weak at longer horizons. Additionally, the relation between number of companies and the rate of economic growth is ambiguous across samples and estimation specifications, suggesting it is weak at best.

Having potentially controlled for unrelated phenomena by employing the macroeconomic, banking sector, and equity market variables employed in the literature, we return to the relationship between economic growth and financial liberalization, where again the latter is measured using the official liberalization indicator. Table 8 presents the regressions with the financial liberalization indicator and all the control variables. In Panel D, we do not include the equity market variables employed for the other samples, as we do not have equity market data for many of the economies in Sample IV.

The results in Table 8 show that the estimated relation between the control variables and economic growth are unaffected by the inclusion of the liberalization indicator. As before, the relation between economic growth and banking sector development is positive and significant only at longer horizons. It is striking that across all samples and estimation specifications, financial liberalization is associated with a higher level of real economic growth. For example, in Panel A, the estimated coefficient on the liberalization indicator is positive and 6.6 standard errors from zero for annual real GDP growth at the five year horizon for weighting matrix specification I. The evidence implies that real GDP per capita growth rates increase following financial liberalization by anywhere from .02% to as large as 2.6% per annum.

Overall, the evidence presented in Table 8 suggests that on average real economic growth rates increase roughly 1% per annum following financial liberalization. This finding is consistent with that presented in Table 4, when no control variables are employed, suggesting the relation between financial liberalization and economic growth is robust across samples, weighting matrix specifications, and conditioning variables. Levine and Renelt (1994) demonstrate the estimated coefficients in cross-country regressions require extreme caution in in-

terpretation, as they are sensitive to the set of control variables employed. Consequently, the evidence presented in Table 8 strengthens the argument that financial liberalization explains an important part of the the cross-sectional and time-series characteristics of real economic growth.

4.3 *Channels through which liberalization operates*

For Samples I and II, which contain equity markets covered by IFC and MSCI, dividend yields are available. As the dividend yield contains information about both the prevailing cost of capital and the growth prospects for a particular economy, we explore several additional experiments that bring the dividend yield information to bear on the exploration of the relation between financial liberalization and economic growth. Financial liberalization may increase economic growth because either the cost of capital decreases or growth opportunities improve. For Samples I and II, Table 9 presents the estimated regression coefficients when the dividend yield is added to the conditioning set. In addition to the dividend yield itself, we include a interaction term between the dividend yield and the liberalization indicator, since, for example, a cost of capital decrease following liberalization may be more important after the liberalization than before. Additionally, we consider a measure of foreign exchange volatility. A positive relationship between foreign exchange volatility and economic growth may reflect the outcome of changes in exchange rate policies.

Table 9 presents the estimated coefficient from the regressions that include these conditioning variables for Samples I and II. Panel A presents the coefficients for Sample I. The coefficient on the dividend yield is negative. For example, for Sample I, the estimated coefficient is negative and significant for weighting matrix specification I at all horizons. Following financial liberalization, equity prices rise to facilitate the lower cost of capital, hence the dividend yield falls. This may result in higher rates of GDP growth. Alternatively, the equity prices rise in response to improved growth prospects, and the dividend yield falls. Again, the lower dividend yield is related to higher economic growth rates. Additionally, the interaction term between the dividend yield and the liberalization indicator is generally negative, but not statistically significant. Across both sample, weighting matrix specifications, and

horizons, the estimated coefficient on foreign exchange volatility is generally positive and significant. The large effect upon real economic growth may mirror changes in exchange rate policies. In Panel B, the coefficient on the dividend yield is positive and significant for Sample II.

Table 10 presents the results with a different specification of the dividend yield. In these regressions, we define the country dividend yield relative to its unconditional average (for that country). The reason for this is to abstract from country specific characteristics that might lead to different dividend yield levels. In addition, we allow the coefficient on the dividend yield to change after a financial liberalization. The results suggest that the coefficient on the interaction variable (dividend yield times the financial liberalization) is highly significant. In addition, for weighting matrix IV, the results across both samples suggest a negative relation between the dividend yield and real economic growth.

5 Conclusions

The goal of the paper is to explore the relation between financial liberalization and real economic growth. While considerable effort in the past has been expended on the economic and financial fundamentals that explain the cross-section of economic growth, we focus on financial liberalizations. We emphasize the time-series component of growth in addition to the cross-sectional relation. Our results suggest that financial market liberalizations are associated with higher real growth, in the range of one percent per annum. The impact of financial market liberalizations is robust to the inclusion of the usual set of control variables representing the macroeconomic environment, banking development and stock market development.

6 Data Appendix

In the system estimation described in Section ??, all data are employed at the annual frequency.

GDP growth. Growth of real per capita gross domestic product. Available for all countries from 1976 through 1997 from the World Bank Development Indicators CD-ROM.

Trade. Trade is the sum of exports and imports of goods and services measured as a share of gross domestic product. Available for all countries from 1976 through 1997 from the World Bank Development Indicators CD-ROM.

Government Consumption. Government Consumption divided by gross domestic product. General government consumption includes all current expenditures for purchases of goods and services by all levels of government, excluding most government enterprises. It also includes capital expenditure on national defense and security. Available for all countries from 1976 through 1997 from the World Bank Development Indicators CD-ROM.

Inflation. Inflation as measured by the annual growth rate of the gross domestic product implicit deflator. Available for all countries from 1976 through 1997 from the World Bank Development Indicators CD-ROM.

Private Credit. Private credit divided by gross domestic product. Credit to private sector refers to financial resources provided to the private sector, such as through loans, purchases of non-equity securities, and trade credits and other accounts receivable that establish a claim for repayment. Available for all countries from 1976 through 1997 from the World Bank Development Indicators CD-ROM.

Market Capitalization. Equity market capitalization divided by gross domestic product. Equity market capitalization is from the *International Finance Corporation's* Emerging Markets Database (CD-ROM) for the emerging markets, and from Morgan Stanley Capital International for the developed markets. Table I presents inclusion dates for the MSCI and IFC covered equity markets; the market capitalization date is available for each country from that point through 1997. The gross domestic product data are from the World Bank Development Indicators CD-ROM.

Number of Companies. We employ the log of the number of domestic companies covered. The measure is from the *International Finance Corporation's* (IFC) Emerging Markets Database (CD-ROM) for the emerging market companies, and from Morgan Stanley Capital International (MSCI) for the developed market companies. The data are available from inclusion date through 1997.

Official Liberalization Indicator. The variable takes a value of one when the equity market is liberalized, and zero otherwise. Liberalization dates are based upon the chronology presented in Bekaert and Harvey (1998) for the markets covered by the *International Finance Corporation's* Global Indices. These dates are as follows:

Country	Official Liberalization Date
Argentina	89.11
Brazil	91.05
Chile	92.01
Colombia	91.02
Greece	87.12
India	92.11
Indonesia	89.09
Jordan	95.12
Korea	92.01
Malaysia	88.12
Mexico	89.05
Nigeria	95.08
Pakistan	91.02
Philippines	91.06
Portugal	86.07
Thailand	87.09
Turkey	89.08
Venezuela	90.01
Zimbabwe	93.06

Additionally, all developed markets covered by MSCI are assumed liberalized throughout the sample, with the exception of Japan, for which we take 81.05 as the liberalization date. This date corresponds to the introduction of the Closed-End Japan Fund. Finally, those countries for which no equity market data are available are assumed to have not pursued financial liberalization policies during the covered years. All liberalization indicators are available from 1976 through 1997.

Dividend Yield. A backward twelve month moving summation of the dividend divided by the current equity market capitalization. The measure is from the *International Finance Corporation's* Emerging Markets Database (CD-ROM) for the emerging market companies, and from Morgan Stanley Capital International for the developed market companies. The data are available from inclusion through 1997.

Foreign Exchange Volatility. A 36-month moving window of the standard deviation on the log changes in the foreign exchange per US\$. For the US, the volatility of the pound-dollar rate is used. These data are available from 1976 through 1997 for the countries covered by IFC and MSCI from the International Monetary Fund's *International Financial Statistics*.

Market Volatility. The measure is obtained using monthly returns from the *International Finance Corporation's* Emerging Markets Database (CD-ROM) for the emerging market global indices, and from Morgan Stanley Capital International for the developed market indices. Estimated by MLE, assuming normal likelihood function. Following Bollerslev (1986),

$$\begin{aligned}
r_{t+1} &= \mu + \epsilon_{t+1} \\
\epsilon_{t+1} &= N(0, \sigma_t) \\
\sigma_{t+1}^2 &= \omega + \gamma \epsilon_{t+1}^2 + \delta \sigma_t^2
\end{aligned} \tag{16}$$

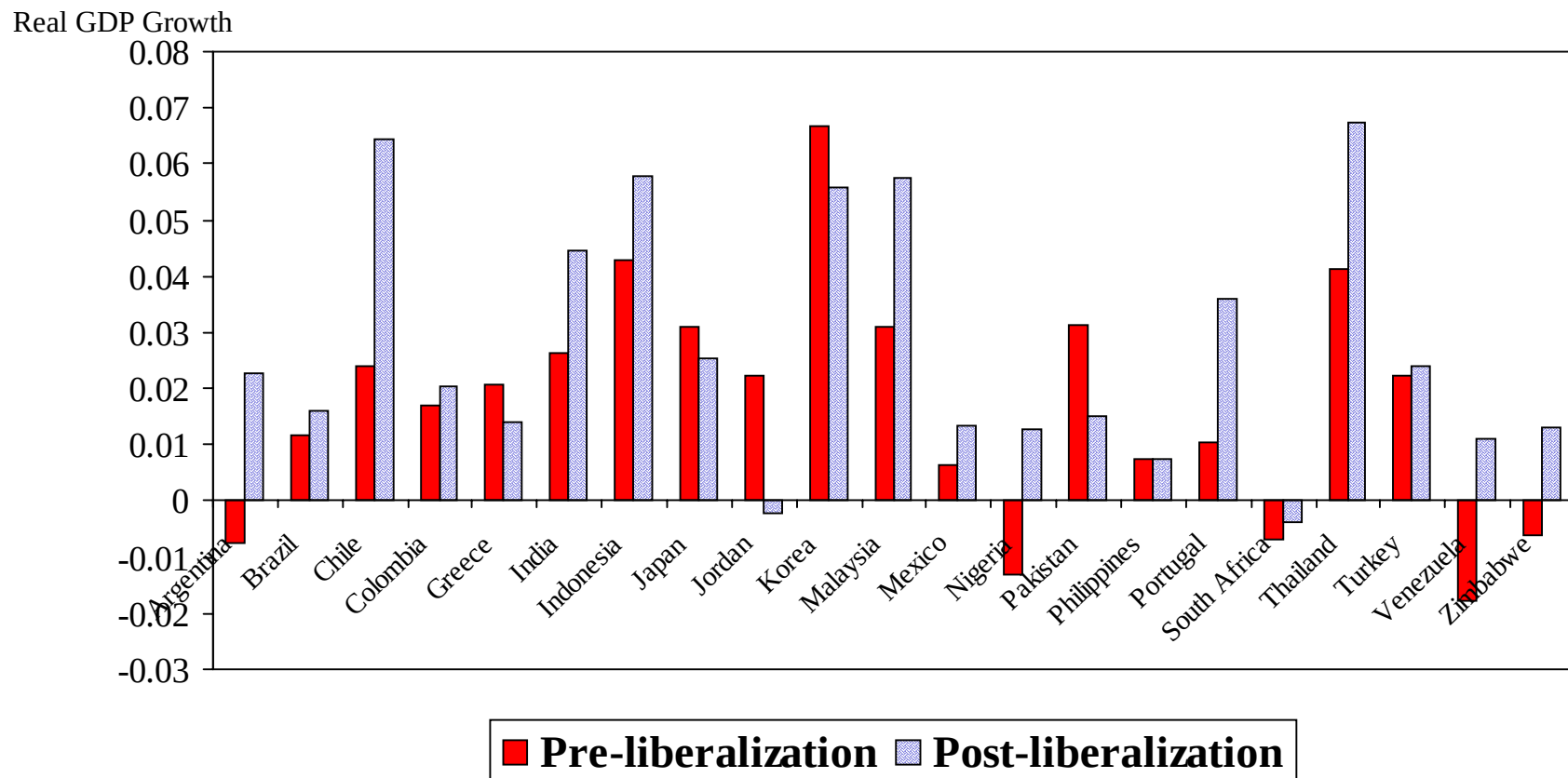
Monthly total return data are available from IFC and MSCI from inclusion date through 1997. Estimated parameters are available upon request.

Credit. We focus on the log of Country Credit Rating from Institutional Investor. These data are available for all countries covered by IFC and MSCI from 1979 through 1997.

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Figure 1
Real Economic Growth
Before and After Financial Liberalizations



Liberalization dates from Bekaert and Harvey (2000).

Table 1
Sample Specification

I=1977-1997 MSCI/IFC (28 countries)
II=1986-1997 MSCI/IFC (35 countries)
III=1989-1997 MSCI/IFC (50 countries)
IV=1977-1997 Macro economic data (95 countries)

Country	Code	Inclusion	Country	Code	Inclusion	Country	Code	Inclusion
Algeria	DZA	(IV)	Greece	GRC	(I,II,III,IV)	Nigeria	NGA	(II,III,IV)
Argentina	ARG	(I,II,III,IV)	Guatemala	GTM	(IV)	Norway	NOR	(I,II,III,IV)
Australia	AUS	(I,II,III,IV)	Guyana	GUY	(IV)	Oman	OMN	(IV)
Austria	AUT	(I,II,III,IV)	Haiti	HTI	(IV)	Pakistan	PAK	(II,III,IV)
Bangladesh	BGD	(III,IV)	Honduras	HND	(IV)	Paraguay	PRY	(IV)
Barbados	BRB	(IV)	Iceland	ISL	(IV)	Peru	PER	(IV)
Belgium	BEL	(I,II,III,IV)	India	IND	(I,II,III,IV)	Philippines	PHL	(II,III,IV)
Benin	BEN	(IV)	Indonesia	IDN	(III,IV)	Portugal	PRT	(III,IV)
Botswana	BWA	(IV)	Iran, Islamic Rep.	IRN	(IV)	Rwanda	RWA	(IV)
Brazil	BRA	(I,II,III,IV)	Ireland	IRL	(I,II,III,IV)	Saudi Arabia	SAU	(IV)
Burkina Faso	BFA	(IV)	Israel	ISR	(III,IV)	Senegal	SEN	(IV)
Cameroon	CMR	(IV)	Italy	ITA	(I,II,III,IV)	Sierra Leone	SLE	(IV)
Canada	CAN	(I,II,III,IV)	Jamaica	JAM	(III,IV)	Singapore	SGP	(I,II,III,IV)
Central African Republic	CAF	(IV)	Japan	JPN	(I,II,III,IV)	Sri Lanka	LKA	(III,IV)
Chad	TCD	(IV)	Jordan	JOR	(II,III,IV)	South Africa	ZAF	(I,II,III,IV)
Chile	CHL	(I,II,III,IV)	Kenya	KEN	(III,IV)	Spain	ESP	(I,II,III,IV)
Colombia	COL	(II,III,IV)	Korea, Rep.	KOR	(I,II,III,IV)	Swaziland	SWZ	(IV)
Congo, Rep.	COG	(IV)	Kuwait	KWT	(IV)	Sweden	SWE	(I,II,III,IV)
Costa Rica	CRI	(IV)	Lesotho	LSO	(IV)	Switzerland	CHE	(I,II,III,IV)
Cote d'Ivoire	CIV	(III,IV)	Madagascar	MDG	(IV)	Syrian Arab Republic	SYR	(IV)
Denmark	DNK	(I,II,III,IV)	Malawi	MWI	(IV)	Thailand	THA	(I,II,III,IV)
Dominican Republic	DOM	(IV)	Malaysia	MYS	(II,III,IV)	Togo	TGO	(IV)
Ecuador	ECU	(IV)	Mali	MLI	(IV)	Trinidad and Tobago	TTO	(III,IV)
Egypt, Arab Rep.	EGY	(III,IV)	Malta	MLT	(IV)	Tunisia	TUN	(III,IV)
El Salvador	SLV	(IV)	Mauritius	MUS	(IV)	Turkey	TUR	(III,IV)
Fiji	FJI	(IV)	Mexico	MEX	(I,II,III,IV)	United Kingdom	GBR	(I,II,III,IV)
Finland	FIN	(III,IV)	Morocco	MAR	(III,IV)	United States	USA	(I,II,III,IV)
France	FRA	(I,II,III,IV)	Nepal	NPL	(IV)	Uruguay	URY	(IV)
Gabon	GAB	(IV)	Netherlands	NLD	(I,II,III,IV)	Venezuela	VEN	(II,III,IV)
Gambia, The	GMB	(IV)	New Zealand	NZL	(III,IV)	Zambia	ZMB	(IV)
Germany	DEU	(I,II,III,IV)	Nicaragua	NIC	(IV)	Zimbabwe	ZWE	(I,II,III,IV)
Ghana	GHA	(IV)	Niger	NER	(IV)			

Table 2
Summary statistics for macroeconomic variables

	Algeria	Argentina	Australia	Austria	Bangla- desh	Barbados	Belgium	Benin	Botswana	Brazil	Burkina Faso	Cam-eroon	Canada	Central African Republic	Chad
<u>Real per capita GDP growth (annual) US\$</u>															
1974-1979															
Mean	0.038	0.003	0.017	0.028	0.010	0.041	0.017	-0.010	0.059	0.034	0.017	0.060	0.025	-0.007	-0.042
Std. dev.	0.017	0.055	0.013	0.028	0.033	0.031	0.026	0.044	0.084	0.024	0.029	0.095	0.014	0.030	0.128
1980-1989															
Mean	-0.002	-0.021	0.018	0.020	0.017	0.017	0.019	0.006	0.070	0.008	0.011	0.009	0.017	-0.016	0.008
Std. dev.	0.029	0.051	0.023	0.012	0.022	0.043	0.018	0.044	0.031	0.047	0.042	0.070	0.026	0.056	0.095
1990-1997															
Mean	-0.017	0.036	0.014	0.018	0.032	-0.011	0.014	0.009	0.024	0.006	0.009	-0.035	0.005	-0.015	0.008
Std. dev.	0.024	0.052	0.021	0.014	0.010	0.035	0.015	0.022	0.026	0.034	0.037	0.044	0.023	0.044	0.123
1974-1997															
Mean	0.001	0.004	0.017	0.021	0.021	0.013	0.017	0.004	0.051	0.013	0.011	0.005	0.014	-0.014	-0.003
Std. dev.	0.032	0.056	0.020	0.017	0.023	0.041	0.018	0.037	0.048	0.038	0.036	0.074	0.023	0.046	0.109
<u>Inflation (GDP deflator -- or CPI if unavailable) 1974-1997</u>															
Mean	0.171	3.750	0.070	0.040	0.108	0.068	0.050	0.073	0.118	4.874	0.065	0.071	0.053	0.092	0.061
Std. dev.	0.143	7.093	0.047	0.020	0.168	0.077	0.035	0.086	0.083	7.549	0.074	0.063	0.040	0.102	0.114
<u>Trade/GDP 1974-1997</u>															
Mean	0.539	0.152	0.347	0.732	0.192	1.129	1.255	0.622	0.970	0.176	0.401	0.478	0.555	0.509	0.451
Std. dev.	0.140	0.022	0.032	0.058	0.053	0.180	0.112	0.072	0.090	0.023	0.029	0.099	0.088	0.101	0.076
<u>Gov Consumption/GDP 1974-1997</u>															
Mean	0.152	0.077	0.177	0.189	0.028	0.179	0.160	0.110	0.226	0.130	0.135	0.104	0.221	0.150	0.125
Std. dev.	0.020	0.038	0.007	0.010	0.013	0.023	0.014	0.024	0.040	0.041	0.019	0.015	0.010	0.026	0.045
<u>Private Credit/GDP 1974-1997</u>															
Mean	0.391	0.212	0.639	0.806	0.118	0.415	0.379	0.204	0.132	0.493	0.140	0.215	0.719	0.094	0.104
Std. dev.	0.205	0.068	0.188	0.144	0.063	0.062	0.176	0.081	0.039	0.183	0.037	0.077	0.104	0.045	0.054

Table 2
Summary statistics for macroeconomic variables (continued)

	Chile	Colombia	Congo, Rep.	Costa Rica	Cote d'Ivoire	Denmark	Domi- nican Republic	Ecuador	Egypt, Arab Rep.	El Salvador	Fiji	Finland	France	Gabon	Gambia, The
<u>Real per capita</u>															
1974-1979															
Mean	0.015	0.026	0.001	0.025	0.041	0.022	0.021	0.036	0.069	0.007	0.026	0.016	0.023	-0.016	0.022
Std. dev.	0.087	0.022	0.076	0.022	0.037	0.026	0.016	0.014	0.037	0.041	0.043	0.029	0.017	0.231	0.047
1980-1989															
Mean	0.025	0.012	0.034	-0.008	-0.039	0.018	0.015	-0.003	0.032	-0.032	-0.003	0.032	0.017	-0.017	0.004
Std. dev.	0.064	0.015	0.090	0.045	0.049	0.020	0.027	0.045	0.025	0.058	0.069	0.013	0.011	0.087	0.032
1990-1997															
Mean	0.058	0.020	-0.019	0.016	-0.004	0.019	0.018	0.010	0.020	0.030	0.006	0.004	0.010	0.008	-0.010
Std. dev.	0.025	0.014	0.037	0.022	0.036	0.010	0.047	0.010	0.016	0.019	0.021	0.048	0.014	0.031	0.016
1974-1997															
Mean	0.034	0.018	0.008	0.008	-0.010	0.019	0.017	0.010	0.036	-0.002	0.006	0.019	0.016	-0.008	0.003
Std. dev.	0.060	0.017	0.073	0.036	0.051	0.018	0.032	0.033	0.030	0.051	0.051	0.033	0.014	0.115	0.032
<u>Inflation (GDP</u>															
Mean	0.733	0.240	0.072	0.217	0.082	0.060	0.170	0.309	0.127	0.131	0.074	0.071	0.064	0.104	0.117
Std. dev.	1.491	0.033	0.126	0.151	0.119	0.037	0.165	0.161	0.062	0.066	0.072	0.050	0.043	0.181	0.106
<u>Trade/GDP 19</u>															
Mean	0.532	0.308	1.098	0.752	0.717	0.669	0.651	0.533	0.572	0.573	1.016	0.578	0.435	0.952	1.088
Std. dev.	0.079	0.035	0.224	0.102	0.089	0.043	0.215	0.066	0.110	0.112	0.142	0.067	0.026	0.107	0.159
<u>Gov Consumpt</u>															
Mean	0.123	0.108	0.179	0.161	0.157	0.259	0.065	0.118	0.156	0.121	0.168	0.201	0.184	0.155	0.203
Std. dev.	0.023	0.023	0.036	0.014	0.020	0.012	0.019	0.023	0.046	0.026	0.023	0.023	0.011	0.040	0.129
<u>Private Credit/(</u>															
Mean	0.488	0.292	0.166	0.210	0.340	0.433	0.283	0.241	0.293	0.288	0.271	0.633	0.912	0.156	0.157
Std. dev.	0.209	0.085	0.059	0.053	0.072	0.075	0.034	0.060	0.083	0.051	0.085	0.164	0.113	0.060	0.059

Table 2
Summary statistics for macroeconomic variables (continued)

	Ghana	Germany	Greece	Guat- emala	Guyana	Haiti	Honduras	Iceland	India	Indonesia	Iran, Islamic Rep.	Ireland	Israel	Italy	Jamaica
<u>Real per capita</u>															
1974-1979															
Mean	-0.036	0.030	0.038	0.027	0.000	0.019	0.039	0.041	0.013	0.049	-0.033	0.034	0.008	0.028	-0.033
Std. dev.	0.082	0.024	0.016	0.023	0.045	0.045	0.036	0.030	0.056	0.014	0.110	0.028	0.024	0.034	0.028
1980-1989															
Mean	-0.013	0.019	0.012	-0.016	-0.035	-0.015	-0.007	0.020	0.036	0.043	-0.032	0.026	0.018	0.023	0.001
Std. dev.	0.050	0.013	0.018	0.028	0.053	0.029	0.026	0.033	0.018	0.024	0.086	0.024	0.021	0.012	0.045
1990-1997															
Mean	0.013	0.013	0.011	0.013	0.045	-0.037	0.001	0.009	0.036	0.056	0.031	0.063	0.024	0.010	-0.001
Std. dev.	0.007	0.014	0.013	0.007	0.034	0.065	0.026	0.029	0.024	0.012	0.036	0.029	0.015	0.013	0.022
1974-1997															
Mean	-0.009	0.019	0.018	0.003	0.001	-0.015	0.006	0.021	0.031	0.049	-0.010	0.041	0.018	0.020	-0.007
Std. dev.	0.051	0.017	0.019	0.027	0.057	0.050	0.032	0.032	0.031	0.019	0.081	0.030	0.020	0.019	0.037
<u>Inflation (GDP</u>															
Mean	0.401	0.034	0.158	0.138	0.275	0.129	0.118	0.270	0.084	0.129	0.213	0.077	0.694	0.110	0.227
Std. dev.	0.240	0.019	0.044	0.102	0.404	0.100	0.079	0.203	0.039	0.102	0.108	0.066	0.921	0.061	0.127
<u>Trade/GDP 19</u>															
Mean	0.357	0.533	0.403	0.409	1.514	0.400	0.692	0.695	0.177	0.491	0.383	1.120	0.925	0.440	1.029
Std. dev.	0.172	0.059	0.038	0.073	0.339	0.084	0.118	0.046	0.047	0.042	0.188	0.130	0.142	0.039	0.214
<u>Gov Consumpt</u>															
Mean	0.106	0.196	0.132	0.068	0.210	0.088	0.130	0.182	0.105	0.093	0.162	0.166	0.342	0.161	0.168
Std. dev.	0.021	0.002	0.016	0.009	0.061	0.018	0.012	0.019	0.010	0.014	0.044	0.016	0.049	0.013	0.032
<u>Private Credit/(</u>															
Mean	0.042	0.922	0.395	0.159	0.261	0.140	0.304	0.383	0.254	0.296	0.308	0.489	0.615	0.564	0.307
Std. dev.	0.017	0.054	0.046	0.027	0.107	0.026	0.030	0.089	0.065	0.167	0.052	0.109	0.110	0.075	0.054

Table 2
Summary statistics for macroeconomic variables (continued)

	Japan	Jordan	Kenya	Korea, Rep.	Kuwait	Lesotho	Mada- gascar	Malawi	Malaysia	Mali	Malta	Mauritius	Mexico	Morocco	Nepal
<u>Real per capita</u>															
1974-1979															
Mean	0.033	0.118	0.015	0.070	-0.022	0.046	-0.011	0.026	0.046	0.055	0.110	0.055	0.026	0.035	0.006
Std. dev.	0.012	0.075	0.035	0.021	0.084	0.136	0.050	0.020	0.038	0.057	0.041	0.081	0.022	0.029	0.013
1980-1989															
Mean	0.031	-0.001	0.005	0.063	-0.064	0.011	-0.024	-0.015	0.028	-0.008	0.042	0.031	-0.002	0.021	0.014
Std. dev.	0.012	0.081	0.020	0.043	0.154	0.066	0.039	0.030	0.032	0.053	0.021	0.059	0.057	0.049	0.041
1990-1997															
Mean	0.018	0.003	-0.006	0.061	0.093	0.043	-0.019	0.014	0.058	0.002	0.039	0.040	0.012	0.004	0.024
Std. dev.	0.018	0.056	0.020	0.016	0.127	0.043	0.030	0.087	0.006	0.038	0.014	0.011	0.040	0.067	0.015
1974-1997															
Mean	0.027	0.026	0.004	0.064	0.000	0.030	-0.019	0.004	0.042	0.009	0.056	0.040	0.009	0.018	0.015
Std. dev.	0.015	0.085	0.024	0.031	0.146	0.078	0.037	0.056	0.030	0.053	0.038	0.053	0.046	0.052	0.029
<u>Inflation (GDP</u>															
Mean	0.033	0.050	0.118	0.114	0.101	0.115	0.171	0.185	0.044	0.078	0.038	0.111	0.402	0.069	0.104
Std. dev.	0.044	0.068	0.055	0.087	0.354	0.070	0.103	0.176	0.047	0.083	0.026	0.117	0.338	0.051	0.062
<u>Trade/GDP 19'</u>															
Mean	0.222	1.227	0.606	0.667	1.026	1.433	0.394	0.600	1.281	0.496	1.781	1.156	0.319	0.544	0.354
Std. dev.	0.044	0.151	0.086	0.058	0.116	0.162	0.074	0.083	0.355	0.077	0.159	0.137	0.134	0.043	0.123
<u>Gov Consumpt</u>															
Mean	0.096	0.255	0.175	0.105	0.253	0.209	0.094	0.166	0.149	0.113	0.183	0.125	0.095	0.172	0.089
Std. dev.	0.003	0.058	0.014	0.006	0.155	0.034	0.018	0.040	0.020	0.018	0.016	0.013	0.009	0.024	0.021
<u>Private Credit/(</u>															
Mean	1.662	0.602	0.295	0.572	0.555	0.154	0.164	0.139	0.772	0.179	0.600	0.302	0.209	0.300	0.114
Std. dev.	0.327	0.155	0.042	0.121	0.291	0.051	0.029	0.047	0.370	0.065	0.275	0.099	0.081	0.103	0.061

Table 2
Summary statistics for macroeconomic variables (continued)

	Nether- lands	New Zealand	Nicaragua	Niger	Nigeria	Norway	Oman	Pakistan	Paraguay	Peru	Phili- ppines	Portugal	Rwanda	Saudi Arabia	Senegal
<u>Real per capita</u>															
1974-1979															
Mean	0.016	-0.008	-0.084	0.019	-0.010	0.041	0.034	0.018	0.059	-0.004	0.036	0.012	0.043	0.038	0.003
Std. dev.	0.018	0.033	0.161	0.060	0.070	0.012	0.118	0.017	0.021	0.023	0.013	0.054	0.078	0.036	0.060
1980-1989															
Mean	0.013	0.012	-0.038	-0.035	-0.024	0.023	0.043	0.039	0.008	-0.024	-0.007	0.029	0.000	-0.050	-0.005
Std. dev.	0.018	0.016	0.050	0.076	0.075	0.022	0.060	0.014	0.052	0.083	0.052	0.031	0.037	0.060	0.054
1990-1997															
Mean	0.020	0.009	0.039	-0.022	0.008	0.031	0.008	0.015	0.002	0.026	0.007	0.025	-0.048	-0.005	0.001
Std. dev.	0.011	0.026	0.101	0.035	0.026	0.012	0.014	0.023	0.012	0.058	0.023	0.017	0.217	0.040	0.027
1974-1997															
Mean	0.016	0.007	-0.021	-0.019	-0.010	0.030	0.029	0.026	0.017	-0.003	0.007	0.024	-0.007	-0.015	-0.001
Std. dev.	0.015	0.024	0.107	0.062	0.060	0.018	0.066	0.021	0.042	0.067	0.040	0.033	0.134	0.059	0.046
<u>Inflation (GDP</u>															
Mean	0.035	0.087	12.154	0.057	0.247	0.057	0.116	0.103	0.186	4.626	0.128	0.151	0.130	0.049	0.071
Std. dev.	0.029	0.063	30.734	0.093	0.207	0.039	0.428	0.052	0.091	13.447	0.104	0.072	0.197	0.141	0.064
<u>Trade/GDP 19'</u>															
Mean	1.011	0.584	0.666	0.465	0.548	0.748	0.939	0.341	0.453	0.319	0.585	0.642	0.325	0.881	0.693
Std. dev.	0.069	0.045	0.209	0.092	0.201	0.044	0.120	0.027	0.127	0.070	0.160	0.091	0.101	0.123	0.124
<u>Gov Consumpt</u>															
Mean	0.158	0.161	0.213	0.128	0.134	0.199	0.301	0.122	0.072	0.097	0.097	0.150	0.127	0.282	0.154
Std. dev.	0.012	0.012	0.106	0.024	0.030	0.012	0.034	0.018	0.016	0.021	0.014	0.019	0.029	0.075	0.026
<u>Private Credit/(</u>															
Mean	0.863	0.420	0.338	0.126	0.113	0.654	0.208	0.263	0.190	0.143	0.348	0.649	0.066	0.498	0.300
Std. dev.	0.125	0.308	0.209	0.044	0.042	0.119	0.058	0.034	0.045	0.039	0.123	0.132	0.017	0.263	0.088

Table 2
Summary statistics for macroeconomic variables (continued)

	Sierra Leone	Singapore	South Africa	Spain	Sri Lanka	Swaziland	Sweden	Switzerland	Syrian Arab Republic	Thailand	Togo	Trinidad and Tobago	Tunisia	Turkey	United Kingdom
<u>Real per capita</u>															
1974-1979															
Mean	-0.004	0.048	-0.007	0.005	0.035	0.001	0.012	-0.005	0.046	0.051	-0.002	0.067	0.036	0.022	0.021
Std. dev.	0.019	0.015	0.019	0.013	0.011	0.059	0.020	0.039	0.071	0.024	0.064	0.032	0.017	0.044	0.013
1980-1989															
Mean	-0.010	0.053	-0.002	0.023	0.026	0.034	0.018	0.017	-0.007	0.052	-0.005	-0.010	0.010	0.018	0.022
Std. dev.	0.034	0.038	0.039	0.020	0.013	0.045	0.011	0.020	0.072	0.030	0.058	0.056	0.032	0.030	0.022
1990-1997															
Mean	-0.076	0.060	-0.010	0.018	0.040	0.005	0.003	-0.002	0.032	0.058	-0.015	0.011	0.030	0.030	0.012
Std. dev.	0.094	0.015	0.021	0.016	0.010	0.021	0.022	0.016	0.022	0.032	0.101	0.072	0.022	0.050	0.021
1974-1997															
Mean	-0.032	0.054	-0.006	0.018	0.033	0.017	0.011	0.006	0.018	0.054	-0.008	0.014	0.023	0.023	0.018
Std. dev.	0.067	0.027	0.029	0.018	0.013	0.043	0.018	0.025	0.061	0.028	0.073	0.063	0.028	0.039	0.020
<u>Inflation (GDP</u>															
Mean	0.414	0.038	0.127	0.104	0.123	0.118	0.072	0.032	0.134	0.060	0.080	0.095	0.078	0.546	0.084
Std. dev.	0.339	0.037	0.028	0.058	0.057	0.051	0.036	0.020	0.083	0.040	0.117	0.133	0.049	0.249	0.062
<u>Trade/GDP 19</u>															
Mean	0.396	3.635	0.528	0.385	0.703	1.569	0.631	0.683	0.538	0.616	0.913	0.810	0.803	0.289	0.542
Std. dev.	0.122	0.329	0.061	0.060	0.083	0.179	0.063	0.043	0.125	0.170	0.200	0.107	0.103	0.121	0.038
<u>Gov Consumpt</u>															
Mean	0.111	0.104	0.171	0.143	0.096	0.203	0.272	0.134	0.180	0.110	0.164	0.153	0.161	0.105	0.213
Std. dev.	0.034	0.014	0.029	0.022	0.011	0.028	0.016	0.009	0.042	0.014	0.039	0.046	0.011	0.017	0.008
<u>Private Credit/</u>															
Mean	0.045	0.911	0.848	0.769	0.201	0.213	0.912	1.363	0.074	0.703	0.231	0.405	0.564	0.183	0.707
Std. dev.	0.019	0.155	0.275	0.049	0.037	0.032	0.247	0.311	0.021	0.369	0.041	0.111	0.094	0.026	0.406

	United States	Uruguay	Venez-uela	Zambia	Zim- babwe
<u>Real per capita</u>					
1974-1979					
Mean	0.021	0.040	0.004	-0.041	-0.044
<i>Std. dev.</i>	<i>0.022</i>	<i>0.020</i>	<i>0.027</i>	<i>0.042</i>	<i>0.038</i>
1980-1989					
Mean	0.015	-0.002	-0.028	-0.017	0.017
<i>Std. dev.</i>	<i>0.023</i>	<i>0.066</i>	<i>0.049</i>	<i>0.031</i>	<i>0.050</i>
1990-1997					
Mean	0.017	0.029	0.011	-0.018	0.001
<i>Std. dev.</i>	<i>0.022</i>	<i>0.030</i>	<i>0.038</i>	<i>0.040</i>	<i>0.056</i>
1974-1997					
Mean	0.017	0.018	-0.008	-0.022	-0.002
<i>Std. dev.</i>	<i>0.022</i>	<i>0.050</i>	<i>0.044</i>	<i>0.036</i>	<i>0.053</i>

Inflation (GDP

Mean	0.055	0.568	0.295	0.445	0.151
<i>Std. dev.</i>	<i>0.033</i>	<i>0.220</i>	<i>0.282</i>	<i>0.458</i>	<i>0.075</i>

Trade/GDP 19

Mean	0.199	0.415	0.499	0.753	0.521
<i>Std. dev.</i>	<i>0.025</i>	<i>0.049</i>	<i>0.065</i>	<i>0.091</i>	<i>0.135</i>

Gov Consumpt

Mean	0.172	0.136	0.101	0.213	0.180
<i>Std. dev.</i>	<i>0.007</i>	<i>0.009</i>	<i>0.021</i>	<i>0.059</i>	<i>0.036</i>

Private Credit/(

Mean	0.914	0.360	0.368	0.172	0.223
<i>Std. dev.</i>	<i>0.129</i>	<i>0.132</i>	<i>0.153</i>	<i>0.086</i>	<i>0.076</i>

Table 3
Summary statistics for financial variables

	Argentina	Australia	Austria	Belgium	Brazil	Canada	Chile	Colombia	Denmark	Finland	France
Dividend yield											
1974-1979											
Mean	0.007	0.054	0.033	0.108	0.070	0.046	0.051	-	0.057	-	0.062
Std. dev.	0.003	0.014	0.002	0.009	0.018	0.005	0.012		0.008		0.008
1980-1989											
Mean	0.015	0.044	0.026	0.095	0.061	0.035	0.061	0.081	0.028	2.500	0.047
Std. dev.	0.015	0.007	0.009	0.037	0.055	0.005	0.022	0.045	0.014	0.424	0.022
1990-1997											
Mean	0.021	0.040	0.016	0.045	0.027	0.027	0.036	0.030	0.016	1.977	0.032
Std. dev.	0.011	0.011	0.004	0.010	0.031	0.006	0.008	0.019	0.004	1.140	0.005
1974-1997											
Mean	0.016	0.045	0.025	0.082	0.050	0.035	0.050	0.050	0.031	2.082	0.046
Std. dev.	0.013	0.011	0.009	0.037	0.044	0.009	0.020	0.040	0.019	1.039	0.018
Forex Volatility											
1974-1979											
Mean	0.247	0.032	0.031	0.014	0.014	0.012	0.113	0.005	0.030	0.023	0.030
Std. dev.	0.159	0.007	0.005	0.002	0.016	0.004	0.091	0.001	0.005	0.003	0.006
1980-1989											
Mean	0.124	0.029	0.035	0.015	0.054	0.013	0.041	0.005	0.034	0.028	0.034
Std. dev.	0.090	0.012	0.004	0.001	0.026	0.002	0.032	0.003	0.004	0.003	0.002
1990-1997											
Mean	0.145	0.023	0.032	0.014	0.109	0.012	0.017	0.015	0.031	0.036	0.032
Std. dev.	0.182	0.005	0.006	0.003	0.047	0.002	0.001	0.012	0.006	0.009	0.006
1974-1997											
Mean	0.162	0.028	0.033	0.014	0.062	0.012	0.051	0.008	0.032	0.029	0.032
Std. dev.	0.146	0.010	0.005	0.002	0.049	0.002	0.061	0.008	0.005	0.008	0.005
Market cap./GDP											
1974-1979											
Mean	0.012	0.106	0.019	0.068	0.049	0.153	0.084	-	0.030	-	0.040
Std. dev.	0.014	0.012	0.002	0.003	0.025	0.006	0.057		0.004		0.009
1980-1989											
Mean	0.015	0.185	0.022	0.126	0.031	0.206	0.120	0.021	0.066	0.085	0.065
Std. dev.	0.012	0.043	0.010	0.080	0.018	0.022	0.081	0.010	0.031	0.000	0.035
1990-1997											
Mean	0.085	0.320	0.091	0.283	0.124	0.303	0.654	0.120	0.199	0.158	0.186
Std. dev.	0.036	0.059	0.012	0.088	0.077	0.067	0.213	0.048	0.045	0.086	0.047
1974-1997											
Mean	0.039	0.215	0.045	0.164	0.068	0.228	0.298	0.078	0.105	0.143	0.102
Std. dev.	0.041	0.095	0.036	0.113	0.063	0.072	0.298	0.063	0.079	0.082	0.073
Log no. companies											
1974-1979											
Mean	3.091	3.611	2.398	2.398	3.032	3.970	3.056	-	2.996	2.773	3.807
Std. dev.	0.000	0.000	0.000	0.000	0.024	0.000	0.023		0.000	0.000	0.000
1980-1989											
Mean	3.112	3.611	2.398	2.398	3.289	3.970	3.159	3.054	2.996	2.773	3.807
Std. dev.	0.060	0.000	0.000	0.000	0.327	0.000	0.116	0.021	0.000	0.000	0.000
1990-1997											
Mean	3.386	3.640	2.521	2.409	4.286	4.073	3.609	3.089	3.014	2.772	3.861
Std. dev.	0.123	0.094	0.228	0.031	0.151	0.125	0.192	0.131	0.025	0.033	0.076
1974-1997											
Mean	3.208	3.621	2.441	2.402	3.605	4.006	3.304	3.075	3.002	2.772	3.825
Std. dev.	0.160	0.055	0.142	0.018	0.583	0.087	0.274	0.102	0.017	0.019	0.050
Market volatility -- GARCH(1,1)											
1974-1979											
Mean	0.079	0.005	0.001	0.002	0.166	0.002	0.016	-	0.003	-	0.004
Std. dev.	0.037	0.002	0.000	0.001	0.082	0.000	0.005		0.002		0.000
1980-1989											
Mean	0.078	0.006	0.004	0.003	0.122	0.003	0.009	0.005	0.003	0.006	0.004
Std. dev.	0.079	0.009	0.005	0.002	0.017	0.003	0.003	0.001	0.000	0.000	0.001
1990-1997											
Mean	0.037	0.002	0.004	0.002	0.604	0.002	0.006	0.009	0.002	0.006	0.004
Std. dev.	0.035	0.001	0.004	0.001	0.947	0.000	0.001	0.011	0.000	0.001	0.000
1974-1997											
Mean	0.063	0.005	0.003	0.003	0.305	0.002	0.009	0.007	0.003	0.006	0.004
Std. dev.	0.061	0.006	0.004	0.001	0.595	0.002	0.005	0.009	0.001	0.001	0.001
Credit rating											
1974-1979 (one observation)											
Mean	4.134	4.474	4.451	4.457	4.173	4.538	3.897	4.106	4.321	4.316	4.512
Std. dev.											
1980-1989											
Mean	3.385	4.393	4.423	4.347	3.595	4.480	3.519	3.813	4.278	4.342	4.431
Std. dev.	0.416	0.100	0.022	0.052	0.253	0.032	0.332	0.191	0.020	0.022	0.046
1990-1997											
Mean	3.416	4.242	4.447	4.378	3.433	4.404	3.930	3.720	4.344	4.290	4.473
Std. dev.	0.317	0.034	0.010	0.010	0.168	0.020	0.188	0.131	0.051	0.048	0.013
1974-1997											
Mean	3.438	4.334	4.434	4.366	3.557	4.451	3.751	3.789	4.308	4.319	4.453
Std. dev.	0.393	0.111	0.021	0.046	0.268	0.050	0.321	0.181	0.048	0.042	0.042

Table 3
Summary statistics for financial variables

	Germany	Greece	India	Indonesia	Ireland	Jordan	Japan	Italy	Korea, Rep.	Malaysia	Mexico
Dividend yield											
1974-1979											
Mean	0.045	0.022	0.046	-	0.067	0.039	0.024	0.034	0.072	-	0.060
Std. dev.	0.010	0.008	0.008		0.022	0.004	0.003	0.008	0.030		0.044
1980-1989											
Mean	0.042	0.072	0.030	-	0.057	0.032	0.011	0.025	0.042	0.022	0.063
Std. dev.	0.014	0.034	0.006		0.026	0.006	0.006	0.007	0.025	0.006	0.059
1990-1997											
Mean	0.029	0.050	0.014	0.014	0.033	0.036	0.008	0.026	0.017	0.021	0.016
Std. dev.	0.008	0.025	0.005	0.009	0.007	0.025	0.001	0.009	0.009	0.009	0.008
1974-1997											
Mean	0.038	0.055	0.027	0.014	0.051	0.034	0.013	0.027	0.038	0.021	0.045
Std. dev.	0.013	0.032	0.013	0.009	0.024	0.016	0.007	0.008	0.029	0.008	0.048
Forex Volatility											
1974-1979											
Mean	0.032	0.019	0.023	0.023	0.011	0.015	0.028	0.027	0.017	0.021	0.051
Std. dev.	0.006	0.004	0.001	0.035	0.001	0.004	0.008	0.006	0.017	0.005	0.047
1980-1989											
Mean	0.035	0.033	0.016	0.042	0.014	0.019	0.035	0.030	0.014	0.014	0.062
Std. dev.	0.004	0.008	0.004	0.027	0.002	0.008	0.004	0.003	0.012	0.003	0.049
1990-1997											
Mean	0.032	0.028	0.027	0.006	0.014	0.012	0.032	0.033	0.010	0.014	0.040
Std. dev.	0.006	0.007	0.011	0.011	0.004	0.010	0.005	0.010	0.010	0.006	0.039
1974-1997											
Mean	0.033	0.028	0.021	0.025	0.013	0.016	0.032	0.030	0.013	0.016	0.052
Std. dev.	0.005	0.009	0.008	0.029	0.003	0.008	0.006	0.007	0.012	0.006	0.045
Market cap./GDP											
1974-1979											
Mean	0.120	0.068	0.008	-	0.072	0.257	0.144	0.023	0.034	-	0.030
Std. dev.	0.000	0.009	0.001		0.028	0.028	0.020	0.008	0.013		0.022
1980-1989											
Mean	0.120	0.026	0.020	0.022	0.120	0.252	0.335	0.054	0.094	0.426	0.027
Std. dev.	0.000	0.020	0.012	0.000	0.078	0.056	0.200	0.032	0.139	0.185	0.024
1990-1997											
Mean	0.137	0.095	0.146	0.120	0.333	0.461	0.462	0.088	0.242	1.414	0.225
Std. dev.	0.037	0.025	0.068	0.077	0.129	0.068	0.147	0.030	0.102	0.748	0.086
1974-1997											
Mean	0.125	0.059	0.061	0.101	0.179	0.336	0.338	0.059	0.132	0.990	0.096
Std. dev.	0.022	0.037	0.075	0.079	0.143	0.119	0.193	0.037	0.136	0.756	0.109
Log no. companies											
1974-1979											
Mean	3.912	2.194	3.135	-	1.946	1.946	5.533	3.689	3.118	-	2.916
Std. dev.	0.000	0.091	0.036		0.000	-	0.000	0.000	0.131		0.351
1980-1989											
Mean	3.912	2.398	3.376	4.043	1.946	2.356	5.533	3.689	3.291	3.750	3.271
Std. dev.	0.000	0.302	0.257	-	0.000	0.209	0.000	0.000	0.290	0.215	0.261
1990-1997											
Mean	3.935	3.607	4.449	4.047	2.013	3.506	5.602	3.753	4.706	4.400	4.219
Std. dev.	0.052	0.258	0.366	0.242	0.071	0.304	0.094	0.074	0.384	0.342	0.150
1974-1997											
Mean	3.920	2.801	3.722	4.047	1.969	2.819	5.557	3.711	3.774	4.150	3.551
Std. dev.	0.032	0.676	0.630	0.226	0.052	0.655	0.063	0.052	0.782	0.438	0.582
Market volatility --											
1974-1979											
Mean	0.002	0.003	0.002	-	0.005	0.002	0.002	0.005	0.010	-	0.006
Std. dev.	0.001	0.001	0.000		0.002	-	0.001	0.001	0.006		0.001
1980-1989											
Mean	0.003	0.008	0.005	-	0.006	0.002	0.002	0.005	0.007	0.012	0.019
Std. dev.	0.002	0.009	0.002		0.006	0.001	0.001	0.002	0.002	0.010	0.029
1990-1997											
Mean	0.002	0.009	0.009	-	0.004	0.002	0.003	0.005	0.009	0.010	0.007
Std. dev.	0.001	0.008	0.005		0.002	0.000	0.002	0.001	0.004	0.009	0.002
1974-1997											
Mean	0.002	0.008	0.006	-	0.005	0.002	0.002	0.005	0.008	0.011	0.012
Std. dev.	0.002	0.008	0.004		0.004	0.000	0.002	0.001	0.004	0.009	0.020
Credit rating											
1974-1979 (one observatic											
Mean	4.588	4.137	3.993	3.974	4.295	3.800	4.574	4.301	4.265	4.253	4.274
Std. dev.											
1980-1989											
Mean	4.545	3.959	3.872	3.905	4.173	3.611	4.557	4.314	4.079	4.164	3.686
Std. dev.	0.014	0.110	0.033	0.103	0.061	0.079	0.004	0.037	0.060	0.116	0.364
1990-1997											
Mean	4.507	3.893	3.751	3.932	4.264	3.245	4.520	4.318	4.243	4.176	3.731
Std. dev.	0.012	0.041	0.098	0.028	0.047	0.207	0.013	0.040	0.025	0.048	0.090
1974-1997											
Mean	4.531	3.941	3.828	3.920	4.218	3.467	4.542	4.315	4.158	4.173	3.736
Std. dev.	0.026	0.100	0.097	0.077	0.071	0.244	0.022	0.037	0.097	0.090	0.295

Table 3
Summary statistics for financial variables

	Nether- lands	New Zealand	Nigeria	Pakistan	Norway	Phili- ppines	Portugal	Singa-pore	South Africa	Spain	Sweden
Dividend yield											
1974-1979											
Mean	0.071	-	-	-	0.044	-	-	0.034	0.060	0.080	0.052
Std. dev.	0.010				0.016			0.010	0.013	0.040	0.006
1980-1989											
Mean	0.055	0.051	0.073	0.075	0.036	0.033	0.012	0.021	0.048	0.087	0.030
Std. dev.	0.013	0.003	0.020	0.009	0.014	0.031	0.006	0.006	0.014	0.046	0.013
1990-1997											
Mean	0.036	0.051	0.068	0.027	0.019	0.010	0.031	0.015	0.025	0.041	0.022
Std. dev.	0.010	0.012	0.024	0.013	0.003	0.006	0.009	0.003	0.006	0.012	0.010
1974-1997											
Mean	0.053	0.051	0.070	0.046	0.032	0.019	0.025	0.022	0.044	0.069	0.033
Std. dev.	0.017	0.011	0.022	0.027	0.016	0.022	0.012	0.009	0.018	0.041	0.016
Forex Volatility											
1974-1979											
Mean	0.023	0.013	0.010	0.000	0.028	0.008	0.032	0.019	0.010	0.030	0.029
Std. dev.	0.007	0.004	0.003	0.000	0.003	0.006	0.006	0.006	0.007	0.011	0.002
1980-1989											
Mean	0.028	0.016	0.064	0.010	0.028	0.028	0.031	0.014	0.019	0.028	0.028
Std. dev.	0.003	0.008	0.064	0.006	0.006	0.024	0.005	0.003	0.011	0.005	0.004
1990-1997											
Mean	0.027	0.007	0.059	0.016	0.029	0.022	0.032	0.011	0.009	0.034	0.034
Std. dev.	0.004	0.002	0.043	0.005	0.007	0.005	0.007	0.002	0.002	0.010	0.012
1974-1997											
Mean	0.026	0.012	0.049	0.009	0.029	0.021	0.032	0.014	0.013	0.031	0.030
Std. dev.	0.004	0.007	0.052	0.008	0.006	0.018	0.005	0.005	0.009	0.009	0.008
Market cap./GDP											
1974-1979											
Mean	0.110	-	-	-	0.025	-	-	0.385	0.187	0.112	0.058
Std. dev.	0.011				0.007			0.073	0.074	0.065	0.012
1980-1989											
Mean	0.191	0.311	0.032	0.020	0.050	0.048	0.081	0.779	0.367	0.062	0.130
Std. dev.	0.065	0.012	0.014	0.002	0.023	0.036	0.035	0.155	0.121	0.036	0.065
1990-1997											
Mean	0.420	0.571	0.058	0.103	0.135	0.352	0.124	0.780	0.822	0.148	0.329
Std. dev.	0.155	0.361	0.029	0.041	0.033	0.212	0.057	0.103	0.140	0.044	0.142
1974-1997											
Mean	0.253	0.519	0.047	0.068	0.074	0.222	0.110	0.694	0.474	0.103	0.184
Std. dev.	0.161	0.337	0.027	0.052	0.052	0.222	0.053	0.204	0.285	0.058	0.144
Log no. companies											
1974-1979											
Mean	2.890	1.792	-	-	2.639	-	-	2.996	3.434	3.367	2.890
Std. dev.	0.000	0.000			0.000			0.000	0.000	0.000	0.000
1980-1989											
Mean	2.890	1.792	2.708	3.920	2.639	2.890	2.576	2.996	3.434	3.367	2.890
Std. dev.	0.000	0.000	0.000	0.030	0.000	0.000	0.397	0.000	0.000	0.000	0.000
1990-1997											
Mean	2.955	1.900	3.233	4.140	2.694	3.538	3.396	3.086	3.474	3.367	2.924
Std. dev.	0.076	0.142	0.269	0.141	0.111	0.324	0.112	0.110	0.080	0.000	0.040
1974-1997											
Mean	2.913	1.829	3.031	4.055	2.658	3.289	3.123	3.027	3.448	3.367	2.902
Std. dev.	0.053	0.096	0.336	0.156	0.068	0.411	0.463	0.076	0.049	0.000	0.028
Market volatility --											
1974-1979											
Mean	0.002	-	-	-	0.006	-	-	0.009	0.006	0.005	0.004
Std. dev.	0.000				0.001			0.007	0.003	0.001	0.001
1980-1989											
Mean	0.002	0.005	0.001	0.002	0.006	0.011	-	0.009	0.007	0.004	0.004
Std. dev.	0.000	0.002	0.001	0.001	0.001	0.001		0.012	0.004	0.001	0.001
1990-1997											
Mean	0.002	0.003	0.001	0.010	0.006	0.011	-	0.005	0.004	0.005	0.004
Std. dev.	0.000	0.001	0.002	0.007	0.001	0.002		0.003	0.001	0.001	0.001
1974-1997											
Mean	0.002	0.004	0.001	0.007	0.006	0.011	-	0.008	0.006	0.005	0.004
Std. dev.	0.000	0.001	0.001	0.007	0.001	0.002		0.009	0.003	0.001	0.001
Credit rating											
1974-1979 (one observatic											
Mean	4.496	4.359	3.991	3.270	4.488	3.780	3.951	4.368	4.127	4.253	4.433
Std. dev.											
1980-1989											
Mean	4.468	4.252	3.410	3.235	4.435	3.334	3.985	4.344	3.849	4.230	4.382
Std. dev.	0.017	0.071	0.433	0.181	0.045	0.319	0.075	0.026	0.290	0.065	0.029
1990-1997											
Mean	4.485	4.200	2.864	3.354	4.386	3.450	4.201	4.394	3.711	4.317	4.332
Std. dev.	0.011	0.063	0.109	0.049	0.044	0.230	0.042	0.035	0.103	0.015	0.031
1974-1997											
Mean	4.477	4.236	3.211	3.287	4.418	3.484	4.074	4.366	3.805	4.268	4.363
Std. dev.	0.017	0.075	0.456	0.144	0.052	0.312	0.126	0.038	0.239	0.064	0.041

Table 3
Summary statistics for financial variables

	Switzer- land	Thailand	Turkey	United Kingdom	United States	Vene-zuela	Zim- babwe	Bangla- desh	Cote d'Ivoire	Egypt, Arab Rep.	Israel
<u>Dividend yield</u>	FRONTIER										
1974-1979											
Mean	0.031	0.049	-	0.068	0.049	-	0.059	-	-	-	-
Std. dev.	0.007	0.017		0.024	0.008		0.019				
1980-1989											
Mean	0.026	0.081	0.059	0.050	0.043	0.018	0.124	-	-	-	-
Std. dev.	0.005	0.032	0.046	0.008	0.008	0.013	0.056				
1990-1997											
Mean	0.018	0.032	0.042	0.042	0.027	0.015	0.044	-	-	-	-
Std. dev.	0.006	0.020	0.020	0.009	0.006	0.008	0.013				
1974-1997											
Mean	0.024	0.058	0.047	0.052	0.039	0.016	0.083	-	-	-	-
Std. dev.	0.007	0.034	0.028	0.017	0.012	0.010	0.054				
<u>Forex Volatility</u>											
1974-1979											
Mean	0.036	0.002	0.029	0.025	0.025	0.001	0.025	0.025	0.013	0.011	0.073
Std. dev.	0.007	0.002	0.022	0.004	0.004	0.002	0.005	0.013	0.003	0.016	0.003
1980-1989											
Mean	0.039	0.016	0.052	0.034	0.034	0.069	0.026	0.007	0.015	0.011	0.042
Std. dev.	0.006	0.010	0.049	0.005	0.005	0.065	0.011	0.005	0.001	0.018	0.020
1990-1997											
Mean	0.036	0.010	0.044	0.032	0.032	0.095	0.037	0.003	0.029	0.024	0.020
Std. dev.	0.005	0.013	0.029	0.011	0.011	0.053	0.013	0.001	0.020	0.026	0.007
1974-1997											
Mean	0.037	0.010	0.044	0.031	0.031	0.061	0.029	0.010	0.019	0.015	0.042
Std. dev.	0.006	0.011	0.037	0.008	0.008	0.062	0.011	0.011	0.013	0.021	0.025
<u>Market cap./GDP</u>											
1974-1979											
Mean	0.234	0.030	-	0.189	0.212	-	0.066	-	-	-	-
Std. dev.	0.051	0.016		0.048	0.029		0.021				
1980-1989											
Mean	0.336	0.052	0.020	0.315	0.247	0.016	0.045	0.017	0.049	0.047	0.154
Std. dev.	0.083	0.054	0.021	0.106	0.037	0.006	0.035	0.001	0.008	0.005	0.043
1990-1997											
Mean	0.715	0.342	0.093	0.662	0.404	0.097	0.194	0.032	0.067	0.122	0.386
Std. dev.	0.306	0.203	0.042	0.120	0.093	0.043	0.085	0.035	0.028	0.081	0.222
1974-1997											
Mean	0.446	0.148	0.069	0.408	0.294	0.062	0.101	0.029	0.063	0.107	0.340
Std. dev.	0.274	0.188	0.051	0.219	0.102	0.052	0.088	0.031	0.026	0.078	0.219
<u>Log no. companies</u>											
1974-1979											
Mean	3.296	1.895	-	4.682	5.513	-	2.247	-	-	-	-
Std. dev.	0.000	0.379		0.000	0.000		0.112				
1980-1989											
Mean	3.296	2.395	2.702	4.682	5.513	2.501	2.280	4.684	3.157	6.207	5.574
Std. dev.	0.000	0.203	0.126	0.000	0.000	0.036	0.080	0.098	0.030	0.038	0.008
1990-1997											
Mean	3.332	3.999	3.604	4.694	5.587	2.792	2.931	5.089	3.318	6.488	6.119
Std. dev.	0.038	0.340	0.359	0.017	0.099	0.099	0.258	0.152	0.145	0.078	0.478
1974-1997											
Mean	3.308	2.887	3.303	4.686	5.539	2.680	2.510	5.008	3.286	6.432	6.010
Std. dev.	0.028	0.922	0.533	0.011	0.066	0.167	0.364	0.220	0.145	0.137	0.480
<u>Market volatility --</u>											
1974-1979											
Mean	0.002	0.007	-	0.005	0.002	-	0.008	-	-	-	-
Std. dev.	0.001	0.005		0.004	0.002		0.002				
1980-1989											
Mean	0.003	0.007	-	0.004	0.003	0.008	0.008	-	-	-	-
Std. dev.	0.003	0.007		0.004	0.003	0.003	0.004				
1990-1997											
Mean	0.002	0.014	-	0.003	0.001	0.017	0.009	-	-	-	-
Std. dev.	0.001	0.010		0.001	0.001	0.006	0.005				
1974-1997											
Mean	0.002	0.009	-	0.004	0.002	0.014	0.009	-	-	-	-
Std. dev.	0.002	0.009		0.004	0.002	0.006	0.004				
<u>Credit rating</u>											
1974-1979 (one observatic											
Mean	4.587	4.002	2.695	4.506	4.594	4.282	3.170	2.721	3.875	3.523	3.983
Std. dev.											
1980-1989											
Mean	4.554	3.981	3.333	4.480	4.553	3.782	3.150	2.766	3.431	3.420	3.516
Std. dev.	0.014	0.046	0.426	0.014	0.033	0.284	0.138	0.126	0.244	0.194	0.123
1990-1997											
Mean	4.526	4.127	3.735	4.462	4.496	3.555	3.386	3.060	2.877	3.382	3.759
Std. dev.	0.007	0.021	0.047	0.018	0.019	0.083	0.089	0.221	0.079	0.202	0.176
1974-1997											
Mean	4.544	4.043	3.469	4.474	4.531	3.713	3.250	2.887	3.221	3.409	3.643
Std. dev.	0.020	0.081	0.408	0.019	0.042	0.273	0.163	0.224	0.365	0.189	0.203

Table 3
Summary statistics for financial variables

	Trinidad &					
	Jamaica	Kenya	Morocco	Sri Lanka	Tobago	Tunisia
<u>Dividend yield</u>						
1974-1979						
Mean	-	-	-	-	-	-
Std. dev.						
1980-1989						
Mean	-	-	-	-	-	-
Std. dev.						
1990-1997						
Mean	-	-	-	-	-	-
Std. dev.						
1974-1997						
Mean	-	-	-	-	-	-
Std. dev.						
<u>Forex Volatility</u>						
1974-1979						
Mean	0.012	0.008	0.010	0.029	0.008	0.011
Std. dev.	0.014	0.003	0.002	0.022	0.004	0.004
1980-1989						
Mean	0.019	0.010	0.011	0.005	0.009	0.012
Std. dev.	0.018	0.003	0.002	0.002	0.012	0.003
1990-1997						
Mean	0.020	0.020	0.011	0.004	0.011	0.012
Std. dev.	0.011	0.011	0.003	0.002	0.011	0.003
1974-1997						
Mean	0.018	0.013	0.011	0.011	0.009	0.012
Std. dev.	0.015	0.008	0.002	0.015	0.010	0.003
<u>Market cap./GDP</u>						
1974-1979						
Mean	-	-	-	-	-	-
Std. dev.						
1980-1989						
Mean	0.229	0.058	0.024	0.064	0.077	0.062
Std. dev.	0.006	0.003	0.005	0.005	0.025	0.002
1990-1997						
Mean	0.451	0.174	0.155	0.174	0.198	0.117
Std. dev.	0.250	0.123	0.115	0.052	0.144	0.074
1974-1997						
Mean	0.407	0.151	0.129	0.152	0.174	0.106
Std. dev.	0.240	0.119	0.115	0.065	0.137	0.070
<u>Log no. companies</u>						
1974-1979						
Mean	-	-	-	-	-	-
Std. dev.						
1980-1989						
Mean	3.795	4.025	4.263	5.170	3.480	2.565
Std. dev.	0.016	0.025	0.000	0.000	0.065	0.000
1990-1997						
Mean	3.864	4.021	4.037	5.327	3.283	3.017
Std. dev.	0.059	0.029	0.172	0.123	0.090	0.361
1974-1997						
Mean	3.851	4.021	4.082	5.296	3.322	2.927
Std. dev.	0.060	0.027	0.179	0.127	0.117	0.371
<u>Market volatility --</u>						
1974-1979						
Mean	-	-	-	-	-	-
Std. dev.						
1980-1989						
Mean	-	-	-	-	-	-
Std. dev.						
1990-1997						
Mean	-	-	-	-	-	-
Std. dev.						
1974-1997						
Mean	-	-	-	-	-	-
Std. dev.						
<u>Credit rating</u>						
1974-1979 (one observatic						
Mean	3.178	3.820	3.818	3.414	4.032	3.912
Std. dev.						
1980-1989						
Mean	2.756	3.444	3.317	3.268	3.827	3.729
Std. dev.	0.090	0.147	0.212	0.129	0.205	0.141
1990-1997						
Mean	3.158	3.280	3.537	3.319	3.494	3.727
Std. dev.	0.157	0.109	0.152	0.174	0.146	0.097
1974-1997						
Mean	2.948	3.395	3.436	3.297	3.767	3.738
Std. dev.	0.238	0.181	0.228	0.146	0.263	0.124

Table 4
Financial liberalization and economic growth - no control variables

	k = 1	2	3	4	5		k = 1	2	3	4	5
<u>Sample I: 28 countries</u>	Weighting matrix I						Weighting matrix IV				
1977-1997											
Official liberalization indicator	0.010	0.013	0.014	0.014	0.013		0.014	0.015	0.014	0.014	0.012
<i>Std. error</i>	<i>0.004</i>	<i>0.003</i>	<i>0.003</i>	<i>0.003</i>	<i>0.002</i>						
<u>Sample II: 35 countries</u>											
1986-1997											
Official liberalization indicator	0.008	0.007	0.007	0.007	0.005		0.011	0.010	0.009	0.007	0.004
<i>Std. error</i>	<i>0.003</i>	<i>0.003</i>	<i>0.002</i>	<i>0.002</i>	<i>0.001</i>		<i>0.004</i>	<i>0.004</i>	<i>0.004</i>	<i>0.004</i>	<i>0.003</i>
<u>Sample III: 50 countries</u>											
1989-1997											
Official liberalization indicator	0.011	0.011	0.010	0.006	0.003		0.016	0.013	0.011	0.007	0.004
<i>Std. error</i>	<i>0.003</i>	<i>0.003</i>	<i>0.002</i>	<i>0.002</i>	<i>0.001</i>		<i>0.005</i>	<i>0.004</i>	<i>0.003</i>	<i>0.003</i>	<i>0.002</i>
	k = 1	2	3	4	5	6	7	8	9	10	
<u>Sample IV: 95 countries</u>	Weighting matrix IV										
1977-1997											
Official liberalization indicator	0.014	0.014	0.013	0.012	0.010	0.009	0.010	0.009	0.005	0.003	
<i>Std. error</i>	<i>0.003</i>	<i>0.003</i>	<i>0.002</i>	<i>0.002</i>	<i>0.002</i>	<i>0.002</i>	<i>0.002</i>	<i>0.003</i>	<i>0.002</i>	<i>0.002</i>	

Table 5
Macroeconomic control variables and economic growth

	k = 1	2	3	4	5		k = 1	2	3	4	5
<u>Sample I: 28 countries</u>	Weighting matrix I						Weighting matrix IV				
1977-1997											
Govt/GDP	-0.0909	-0.2756	-0.3091	-0.2601	-0.2153		-0.0695	-0.0122	-0.0204	-0.0579	-0.0778
<i>Std. error</i>	<i>0.0604</i>	<i>0.0620</i>	<i>0.0551</i>	<i>0.0479</i>	<i>0.0346</i>		<i>0.0720</i>	<i>0.0714</i>	<i>0.0673</i>	<i>0.0607</i>	<i>0.0543</i>
TRADE/GDP	0.0174	0.0079	-0.0024	-0.0132	0.0002		0.0444	0.0342	0.0224	0.0132	0.0097
<i>Std. error</i>	<i>0.0078</i>	<i>0.0086</i>	<i>0.0081</i>	<i>0.0052</i>	<i>0.0069</i>		<i>0.0132</i>	<i>0.0132</i>	<i>0.0126</i>	<i>0.0114</i>	<i>0.0098</i>
Inflation	0.0001	0.0012	0.0018	0.0018	0.0014		0.0001	0.0006	0.0009	0.0010	0.0008
<i>Std. error</i>	<i>0.0007</i>	<i>0.0005</i>	<i>0.0003</i>	<i>0.0002</i>	<i>0.0001</i>		<i>0.0005</i>	<i>0.0005</i>	<i>0.0004</i>	<i>0.0004</i>	<i>0.0003</i>
<u>Sample II: 35 countries</u>											
1986-1997											
Govt/GDP	-0.1517	-0.5980	-0.4446	-0.3423	-0.1633		-0.1499	-0.0458	-0.0193	-0.0289	-0.0255
<i>Std. error</i>	<i>0.0565</i>	<i>0.0634</i>	<i>0.0531</i>	<i>0.0407</i>	<i>0.0319</i>		<i>0.0911</i>	<i>0.0895</i>	<i>0.0772</i>	<i>0.0650</i>	<i>0.0558</i>
TRADE/GDP	0.0352	0.0096	0.0147	0.0227	0.0380		0.0384	0.0357	0.0301	0.0240	0.0223
<i>Std. error</i>	<i>0.0081</i>	<i>0.0054</i>	<i>0.0070</i>	<i>0.0064</i>	<i>0.0061</i>		<i>0.0138</i>	<i>0.0140</i>	<i>0.0130</i>	<i>0.0117</i>	<i>0.0101</i>
Inflation	0.0002	0.0012	0.0018	0.0015	0.0012		-0.0001	0.0007	0.0011	0.0011	0.0008
<i>Std. error</i>	<i>0.0006</i>	<i>0.0005</i>	<i>0.0003</i>	<i>0.0002</i>	<i>0.0002</i>		<i>0.0006</i>	<i>0.0005</i>	<i>0.0004</i>	<i>0.0004</i>	<i>0.0003</i>
<u>Sample III: 50 countries</u>											
1989-1997											
Govt/GDP	-0.5116	-0.8728	-0.4943	-0.3648	-0.2556		-0.2296	-0.0146	0.1204	0.1297	0.1469
<i>Std. error</i>	<i>0.0729</i>	<i>0.0481</i>	<i>0.0507</i>	<i>0.0326</i>	<i>0.0311</i>		<i>0.1088</i>	<i>0.0953</i>	<i>0.0786</i>	<i>0.0633</i>	<i>0.0561</i>
TRADE/GDP	-0.0071	-0.0060	-0.0147	-0.0206	-0.0385		0.0557	0.0498	0.0427	0.0206	0.0104
<i>Std. error</i>	<i>0.0058</i>	<i>0.0072</i>	<i>0.0028</i>	<i>0.0042</i>	<i>0.0058</i>		<i>0.0193</i>	<i>0.0169</i>	<i>0.0152</i>	<i>0.0132</i>	<i>0.0125</i>
Inflation	-0.0001	0.0007	0.0013	0.0009	0.0007		-0.0002	0.0006	0.0008	0.0008	0.0004
<i>Std. error</i>	<i>0.0006</i>	<i>0.0006</i>	<i>0.0004</i>	<i>0.0003</i>	<i>0.0001</i>		<i>0.0007</i>	<i>0.0006</i>	<i>0.0005</i>	<i>0.0004</i>	<i>0.0003</i>
<u>Sample IV: 95 countries</u>	k = 1	2	3	4	5	6	7	8	9	10	
1977-1997	Weighting matrix IV										
Govt/GDP	-0.0070	0.0026	0.0062	0.0016	0.0071	0.0113	0.0191	0.0286	0.0408	0.0431	
<i>Std. error</i>	<i>0.0311</i>	<i>0.0242</i>	<i>0.0206</i>	<i>0.0186</i>	<i>0.0169</i>	<i>0.0158</i>	<i>0.0162</i>	<i>0.0156</i>	<i>0.0146</i>	<i>0.0140</i>	
TRADE/GDP	0.0592	0.0466	0.0293	0.0164	0.0108	0.0065	0.0020	0.0003	-0.0037	-0.0072	
<i>Std. error</i>	<i>0.0090</i>	<i>0.0072</i>	<i>0.0063</i>	<i>0.0058</i>	<i>0.0054</i>	<i>0.0051</i>	<i>0.0048</i>	<i>0.0045</i>	<i>0.0044</i>	<i>0.0042</i>	
Inflation	-0.0002	-0.0001	0.0001	0.0003	0.0004	0.0006	0.0006	0.0006	0.0005	0.0013	
<i>Std. error</i>	<i>0.0003</i>	<i>0.0002</i>	<i>0.0002</i>	<i>0.0002</i>	<i>0.0002</i>	<i>0.0001</i>	<i>0.0001</i>	<i>0.0001</i>	<i>0.0001</i>	<i>0.0012</i>	

Table 6
Macroeconomic and banking control variables and economic growth

	k = 1	2	3	4	5		k = 1	2	3	4	5
<u>Sample I: 28 countries</u>	Weighting matrix I						Weighting matrix IV				
1977-1997											
Govt/GDP	-0.0951	-0.3278	-0.3563	-0.2894	-0.2284		-0.0616	-0.0024	-0.0105	-0.0538	-0.0804
<i>Std. error</i>	<i>0.0581</i>	<i>0.0566</i>	<i>0.0444</i>	<i>0.0396</i>	<i>0.0296</i>		<i>0.0717</i>	<i>0.0705</i>	<i>0.0661</i>	<i>0.0595</i>	<i>0.0536</i>
TRADE/GDP	0.0232	0.0090	-0.0005	-0.0059	0.0048		0.0481	0.0359	0.0228	0.0132	0.0096
<i>Std. error</i>	<i>0.0070</i>	<i>0.0058</i>	<i>0.0048</i>	<i>0.0046</i>	<i>0.0054</i>		<i>0.0132</i>	<i>0.0131</i>	<i>0.0124</i>	<i>0.0111</i>	<i>0.0097</i>
Inflation	-0.0004	0.0010	0.0018	0.0017	0.0014		0.0002	0.0007	0.0009	0.0010	0.0008
<i>Std. error</i>	<i>0.0005</i>	<i>0.0004</i>	<i>0.0002</i>	<i>0.0002</i>	<i>0.0001</i>		<i>0.0005</i>	<i>0.0005</i>	<i>0.0004</i>	<i>0.0004</i>	<i>0.0003</i>
Priv Credit/GDP	-0.0165	-0.0182	-0.0146	-0.0108	-0.0061		-0.0169	-0.0151	-0.0125	-0.0081	-0.0029
<i>Std. error</i>	<i>0.0043</i>	<i>0.0040</i>	<i>0.0036</i>	<i>0.0037</i>	<i>0.0026</i>		<i>0.0068</i>	<i>0.0071</i>	<i>0.0068</i>	<i>0.0063</i>	<i>0.0057</i>
<u>Sample II: 35 countries</u>											
1986-1997											
Govt/GDP	-0.0207	-0.4774	-0.3915	-0.2635	-0.1412		0.0129	0.0126	0.0100	0.0065	0.0041
<i>Std. error</i>	<i>0.0520</i>	<i>0.0617</i>	<i>0.0491</i>	<i>0.0401</i>	<i>0.0282</i>		<i>0.0044</i>	<i>0.0041</i>	<i>0.0041</i>	<i>0.0036</i>	<i>0.0030</i>
TRADE/GDP	0.0514	0.0180	0.0431	0.0718	0.0724		-0.1550	-0.0424	-0.0226	-0.0481	-0.0701
<i>Std. error</i>	<i>0.0064</i>	<i>0.0061</i>	<i>0.0086</i>	<i>0.0056</i>	<i>0.0067</i>		<i>0.0998</i>	<i>0.0901</i>	<i>0.0853</i>	<i>0.0736</i>	<i>0.0655</i>
Inflation	-0.0002	0.0013	0.0017	0.0015	0.0012		0.0001	0.0009	0.0012	0.0011	0.0008
<i>Std. error</i>	<i>0.0006</i>	<i>0.0005</i>	<i>0.0002</i>	<i>0.0002</i>	<i>0.0002</i>		<i>0.0006</i>	<i>0.0005</i>	<i>0.0005</i>	<i>0.0004</i>	<i>0.0003</i>
Priv Credit/GDP	-0.0325	-0.0295	-0.0308	-0.0195	-0.0047		-0.0352	-0.0389	-0.0360	-0.0215	-0.0088
<i>Std. error</i>	<i>0.0047</i>	<i>0.0050</i>	<i>0.0043</i>	<i>0.0039</i>	<i>0.0026</i>		<i>0.0108</i>	<i>0.0108</i>	<i>0.0107</i>	<i>0.0098</i>	<i>0.0082</i>
<u>Sample II: 35 countries</u>											
1989-1997											
Govt/GDP	-0.3631	-0.6417	-0.4000	-0.1620	-0.0061		-0.2034	0.0036	0.1267	0.1267	0.1457
<i>Std. error</i>	<i>0.0577</i>	<i>0.0509</i>	<i>0.0345</i>	<i>0.0295</i>	<i>0.0122</i>		<i>0.1059</i>	<i>0.0905</i>	<i>0.0748</i>	<i>0.0581</i>	<i>0.0457</i>
TRADE/GDP	0.0233	-0.0035	-0.0158	-0.0206	-0.0214		0.0624	0.0539	0.0429	0.0208	0.0106
<i>Std. error</i>	<i>0.0058</i>	<i>0.0066</i>	<i>0.0036</i>	<i>0.0031</i>	<i>0.0038</i>		<i>0.0189</i>	<i>0.0161</i>	<i>0.0144</i>	<i>0.0121</i>	<i>0.0102</i>
Inflation	-0.0003	0.0003	0.0012	0.0007	0.0004		0.0000	0.0007	0.0008	0.0008	0.0004
<i>Std. error</i>	<i>0.0004</i>	<i>0.0006</i>	<i>0.0004</i>	<i>0.0003</i>	<i>0.0001</i>		<i>0.0007</i>	<i>0.0005</i>	<i>0.0004</i>	<i>0.0003</i>	<i>0.0002</i>
Priv Credit/GDP	-0.0323	-0.0044	0.0057	0.0135	0.0206		-0.0369	-0.0273	-0.0108	0.0078	0.0051
<i>Std. error</i>	<i>0.0050</i>	<i>0.0053</i>	<i>0.0030</i>	<i>0.0034</i>	<i>0.0023</i>		<i>0.0128</i>	<i>0.0122</i>	<i>0.0108</i>	<i>0.0090</i>	<i>0.0074</i>
<u>Sample IV: 95 countries</u>	k = 1	2	3	4	5	6	7	8	9	10	
1977-1997	Weighting matrix IV										
Govt/GDP	-0.0362	-0.0409	-0.0259	-0.0227	-0.0111	-0.0100	-0.0029	0.0048	0.0137	0.0146	
<i>Std. error</i>	<i>0.0341</i>	<i>0.0266</i>	<i>0.0227</i>	<i>0.0210</i>	<i>0.0193</i>	<i>0.0185</i>	<i>0.0165</i>	<i>0.0159</i>	<i>0.0149</i>	<i>0.0143</i>	
TRADE/GDP	0.0541	0.0402	0.0234	0.0119	0.0069	0.0031	0.0019	0.0007	-0.0031	-0.0065	
<i>Std. error</i>	<i>0.0092</i>	<i>0.0074</i>	<i>0.0064</i>	<i>0.0061</i>	<i>0.0057</i>	<i>0.0053</i>	<i>0.0047</i>	<i>0.0045</i>	<i>0.0043</i>	<i>0.0041</i>	
Inflation	-0.0002	0.0000	0.0001	0.0003	0.0004	0.0005	0.0006	0.0006	0.0006	0.0031	
<i>Std. error</i>	<i>0.0003</i>	<i>0.0002</i>	<i>0.0002</i>	<i>0.0002</i>	<i>0.0002</i>	<i>0.0001</i>	<i>0.0001</i>	<i>0.0001</i>	<i>0.0001</i>	<i>0.0012</i>	
Priv Credit/GDP	-0.0139	-0.0107	-0.0033	0.0047	0.0111	0.0210	0.0248	0.0280	0.0305	0.0322	
<i>Std. error</i>	<i>0.0083</i>	<i>0.0068</i>	<i>0.0060</i>	<i>0.0057</i>	<i>0.0054</i>	<i>0.0052</i>	<i>0.0047</i>	<i>0.0046</i>	<i>0.0045</i>	<i>0.0046</i>	

Table 7
Macroeconomic, banking, and stock market control variables and economic growth

	k = 1	2	3	4	5		k = 1	2	3	4	5
<u>Sample I: 28 countries</u>	Weighting matrix I						Weighting matrix IV				
1977-1997											
Govt/GDP	-0.0316	-0.3294	-0.3880	-0.3139	-0.2745		-0.0305	0.0365	0.0216	-0.0213	-0.0549
<i>Std. error</i>	0.0524	0.0509	0.0396	0.0333	0.0215		0.0714	0.0709	0.0660	0.0597	0.0548
TRADE/GDP	0.0244	0.0053	0.0018	-0.0078	-0.0153		0.0441	0.0361	0.0231	0.0141	0.0117
<i>Std. error</i>	0.0074	0.0043	0.0044	0.0038	0.0039		0.0133	0.0132	0.0124	0.0111	0.0098
Inflation	-0.0005	0.0012	0.0016	0.0017	0.0013		0.0003	0.0008	0.0010	0.0011	0.0009
<i>Std. error</i>	0.0005	0.0004	0.0002	0.0001	0.0001		0.0005	0.0005	0.0004	0.0004	0.0003
Priv Credit/GDP	-0.0318	-0.0187	-0.0182	-0.0164	-0.0089		-0.0365	-0.0261	-0.0188	-0.0086	0.0029
<i>Std. error</i>	0.0045	0.0037	0.0034	0.0036	0.0028		0.0083	0.0087	0.0081	0.0075	0.0067
MCAP/GDP	0.0434	0.0235	0.0161	0.0159	0.0030		0.0514	0.0327	0.0218	0.0095	-0.0019
<i>Std. error</i>	0.0064	0.0059	0.0050	0.0055	0.0051		0.0115	0.0121	0.0112	0.0110	0.0103
ln(# of stocks)	-0.0039	-0.0048	-0.0039	-0.0016	0.0006		-0.0031	-0.0033	-0.0026	-0.0033	-0.0043
<i>Std. error</i>	0.0018	0.0018	0.0014	0.0013	0.0010		0.0034	0.0036	0.0035	0.0033	0.0031
<u>Sample II: 35 countries</u>											
1986-1997											
Govt/GDP	0.0568	-0.5450	-0.3623	-0.1960	-0.0714		-0.0461	0.0622	0.0838	0.0618	0.0272
<i>Std. error</i>	0.0442	0.0565	0.0344	0.0282	0.0164		0.1021	0.0956	0.0802	0.0687	0.0573
TRADE/GDP	0.0413	0.0251	0.0542	0.0869	0.0842		0.0433	0.0654	0.0686	0.0600	0.0571
<i>Std. error</i>	0.0058	0.0053	0.0065	0.0043	0.0031		0.0180	0.0168	0.0147	0.0128	0.0103
Inflation	0.0001	0.0012	0.0016	0.0014	0.0011		0.0002	0.0009	0.0012	0.0011	0.0008
<i>Std. error</i>	0.0005	0.0004	0.0002	0.0002	0.0001		0.0006	0.0005	0.0004	0.0004	0.0003
Priv Credit/GDP	-0.0332	-0.0192	-0.0189	-0.0108	0.0003		-0.0457	-0.0416	-0.0329	-0.0172	-0.0023
<i>Std. error</i>	0.0051	0.0035	0.0025	0.0025	0.0013		0.0117	0.0121	0.0107	0.0095	0.0077
MCAP/GDP	0.0125	0.0030	-0.0064	-0.0136	-0.0218		0.0334	0.0138	0.0064	-0.0003	-0.0019
<i>Std. error</i>	0.0026	0.0021	0.0023	0.0023	0.0021		0.0105	0.0102	0.0086	0.0075	0.0100
ln(# of stocks)	-0.0043	-0.0102	-0.0069	-0.0087	-0.0086		-0.0080	-0.0062	-0.0042	-0.0014	-0.0043
<i>Std. error</i>	0.0016	0.0014	0.0010	0.0005	0.0006		0.0047	0.0047	0.0041	0.0036	0.0031
<u>Sample III: 50 countries</u>											
1989-1997											
Govt/GDP	-0.4558	-0.9207	-0.3663	-0.1684	0.0055		-0.1703	0.0263	0.1447	0.1373	0.1536
<i>Std. error</i>	0.0447	0.0477	0.0267	0.0298	0.0143		0.1104	0.1025	0.0766	0.0599	0.0487
TRADE/GDP	-0.0624	0.0554	-0.0026	-0.0032	0.0071		0.0395	0.0444	0.0356	0.0213	0.0106
<i>Std. error</i>	0.0074	0.0069	0.0029	0.0040	0.0026		0.0219	0.0201	0.0160	0.0131	0.0114
Inflation	-0.0003	0.0004	0.0005	0.0006	0.0002		0.0001	0.0007	0.0008	0.0008	0.0004
<i>Std. error</i>	0.0003	0.0006	0.0004	0.0004	0.0001		0.0007	0.0006	0.0005	0.0003	0.0003
Priv Credit/GDP	-0.0110	0.0440	0.0282	0.0342	0.0277		-0.0496	-0.0354	-0.0166	0.0067	0.0049
<i>Std. error</i>	0.0041	0.0056	0.0032	0.0026	0.0017		0.0143	0.0148	0.0117	0.0096	0.0077
MCAP/GDP	0.0173	-0.0140	-0.0039	-0.0064	-0.0207		0.0334	0.0230	0.0151	0.0053	0.0040
<i>Std. error</i>	0.0033	0.0046	0.0011	0.0018	0.0022		0.0121	0.0112	0.0083	0.0068	0.0085
ln(# of stocks)	0.0135	-0.0346	-0.0154	-0.0156	-0.0154		-0.0031	-0.0102	-0.0068	-0.0076	-0.0035
<i>Std. error</i>	0.0023	0.0015	0.0014	0.0016	0.0009		0.0074	0.0072	0.0058	0.0050	0.0044

Table 8
Liberalization and growth controlling for macroeconomic, banking and stock market development control variables

	k = 1	2	3	4	5		k = 1	2	3	4	5
<u>Sample I: 28 countries</u>	Weighting matrix I						Weighting matrix IV				
1977-1997											
Govt/GDP	-0.0513	-0.2708	-0.3315	-0.2494	-0.2113		-0.0202	0.0466	0.0367	-0.0006	-0.0463
<i>Std. error</i>	<i>0.0501</i>	<i>0.0487</i>	<i>0.0333</i>	<i>0.0250</i>	<i>0.0190</i>		<i>0.0714</i>	<i>0.0691</i>	<i>0.0639</i>	<i>0.0570</i>	<i>0.0530</i>
TRADE/GDP	0.0229	0.0072	-0.0002	-0.0084	-0.0162		0.0402	0.0310	0.0183	0.0109	0.0090
<i>Std. error</i>	<i>0.0067</i>	<i>0.0058</i>	<i>0.0043</i>	<i>0.0042</i>	<i>0.0040</i>		<i>0.0134</i>	<i>0.0129</i>	<i>0.0120</i>	<i>0.0107</i>	<i>0.0095</i>
Inflation	-0.0005	0.0008	0.0014	0.0012	0.0011		0.0001	0.0006	0.0008	0.0010	0.0008
<i>Std. error</i>	<i>0.0003</i>	<i>0.0003</i>	<i>0.0002</i>	<i>0.0001</i>	<i>0.0001</i>		<i>0.0005</i>	<i>0.0005</i>	<i>0.0004</i>	<i>0.0003</i>	<i>0.0003</i>
Priv Credit/GDP	-0.0228	-0.0098	-0.0088	-0.0086	-0.0040		-0.0340	-0.0232	-0.0168	-0.0083	0.0023
<i>Std. error</i>	<i>0.0046</i>	<i>0.0040</i>	<i>0.0034</i>	<i>0.0030</i>	<i>0.0025</i>		<i>0.0084</i>	<i>0.0085</i>	<i>0.0079</i>	<i>0.0072</i>	<i>0.0065</i>
MCAP/GDP	0.0217	0.0022	0.0003	-0.0036	-0.0108		0.0427	0.0203	0.0103	0.0025	-0.0057
<i>Std. error</i>	<i>0.0062</i>	<i>0.0057</i>	<i>0.0045</i>	<i>0.0046</i>	<i>0.0045</i>		<i>0.0119</i>	<i>0.0121</i>	<i>0.0110</i>	<i>0.0107</i>	<i>0.0099</i>
ln(# of stocks)	-0.0051	-0.0111	-0.0089	-0.0055	-0.0009		-0.0081	-0.0095	-0.0081	-0.0078	-0.0073
<i>Std. error</i>	<i>0.0020</i>	<i>0.0019</i>	<i>0.0015</i>	<i>0.0010</i>	<i>0.0008</i>		<i>0.0039</i>	<i>0.0039</i>	<i>0.0036</i>	<i>0.0033</i>	<i>0.0031</i>
Official Liberalization Indicator	0.0150	0.0210	0.0169	0.0156	0.0105		0.0144	0.0197	0.0190	0.0160	0.0125
<i>Std. error</i>	<i>0.0030</i>	<i>0.0024</i>	<i>0.0022</i>	<i>0.0020</i>	<i>0.0016</i>		<i>0.0052</i>	<i>0.0050</i>	<i>0.0046</i>	<i>0.0040</i>	<i>0.0035</i>
<u>Sample II: 35 countries</u>											
1986-1997											
Govt/GDP	0.0035	-0.3419	-0.2881	-0.1610	-0.0262		-0.0466	0.0669	0.0820	0.0528	0.0303
<i>Std. error</i>	<i>0.0451</i>	<i>0.0372</i>	<i>0.0303</i>	<i>0.0208</i>	<i>0.0133</i>		<i>0.1028</i>	<i>0.0917</i>	<i>0.0813</i>	<i>0.0684</i>	<i>0.0565</i>
TRADE/GDP	0.0437	0.0450	0.0423	0.0613	0.0634		0.0434	0.0643	0.0646	0.0561	0.0548
<i>Std. error</i>	<i>0.0066</i>	<i>0.0051</i>	<i>0.0051</i>	<i>0.0038</i>	<i>0.0030</i>		<i>0.0181</i>	<i>0.0161</i>	<i>0.0149</i>	<i>0.0130</i>	<i>0.0103</i>
Inflation	-0.0003	0.0008	0.0013	0.0011	0.0010		0.0002	0.0009	0.0012	0.0010	0.0007
<i>Std. error</i>	<i>0.0003</i>	<i>0.0003</i>	<i>0.0001</i>	<i>0.0001</i>	<i>0.0001</i>		<i>0.0006</i>	<i>0.0005</i>	<i>0.0005</i>	<i>0.0004</i>	<i>0.0003</i>
Priv Credit/GDP	-0.0054	0.0005	0.0146	0.0191	0.0101		-0.0438	-0.0395	-0.0324	-0.0183	-0.0025
<i>Std. error</i>	<i>0.0046</i>	<i>0.0034</i>	<i>0.0023</i>	<i>0.0019</i>	<i>0.0014</i>		<i>0.0118</i>	<i>0.0116</i>	<i>0.0108</i>	<i>0.0096</i>	<i>0.0077</i>
MCAP/GDP	0.0052	-0.0076	-0.0100	-0.0157	-0.0271		0.0281	0.0082	0.0047	-0.0010	-0.0038
<i>Std. error</i>	<i>0.0035</i>	<i>0.0030</i>	<i>0.0019</i>	<i>0.0016</i>	<i>0.0017</i>		<i>0.0109</i>	<i>0.0100</i>	<i>0.0089</i>	<i>0.0076</i>	<i>0.0102</i>
ln(# of stocks)	-0.0064	-0.0263	-0.0185	-0.0146	-0.0095		-0.0129	-0.0102	-0.0062	-0.0020	-0.0045
<i>Std. error</i>	<i>0.0018</i>	<i>0.0015</i>	<i>0.0007</i>	<i>0.0004</i>	<i>0.0004</i>		<i>0.0053</i>	<i>0.0048</i>	<i>0.0043</i>	<i>0.0038</i>	<i>0.0031</i>
Official Liberalization Indicator	0.0066	0.0227	0.0134	0.0092	0.0050		0.0110	0.0105	0.0068	0.0040	0.0027
<i>Std. error</i>	<i>0.0022</i>	<i>0.0015</i>	<i>0.0008</i>	<i>0.0002</i>	<i>0.0005</i>		<i>0.0053</i>	<i>0.0047</i>	<i>0.0043</i>	<i>0.0036</i>	<i>0.0029</i>
<u>Sample III: 50 countries</u>											
1989-1997											
Govt/GDP	-0.1318	0.0379	-0.0593	0.0758	0.2300		-0.1664	0.0272	0.1431	0.1366	0.1485
<i>Std. error</i>	<i>0.0361</i>	<i>0.0284</i>	<i>0.0254</i>	<i>0.0163</i>	<i>0.0234</i>		<i>0.1079</i>	<i>0.0816</i>	<i>0.0701</i>	<i>0.0562</i>	<i>0.0485</i>
TRADE/GDP	-0.0007	0.0829	0.0399	0.0387	0.0373		0.0399	0.0450	0.0360	0.0212	0.0113
<i>Std. error</i>	<i>0.0073</i>	<i>0.0051</i>	<i>0.0053</i>	<i>0.0052</i>	<i>0.0033</i>		<i>0.0214</i>	<i>0.0160</i>	<i>0.0146</i>	<i>0.0123</i>	<i>0.0113</i>
Inflation	-0.0005	0.0002	0.0010	0.0005	0.0002		0.0001	0.0007	0.0008	0.0008	0.0004
<i>Std. error</i>	<i>0.0002</i>	<i>0.0002</i>	<i>0.0004</i>	<i>0.0004</i>	<i>0.0001</i>		<i>0.0007</i>	<i>0.0005</i>	<i>0.0004</i>	<i>0.0003</i>	<i>0.0003</i>
Priv Credit/GDP	-0.0014	0.0015	0.0450	0.0527	0.0169		-0.0506	-0.0374	-0.0192	0.0041	0.0044
<i>Std. error</i>	<i>0.0040</i>	<i>0.0038</i>	<i>0.0020</i>	<i>0.0018</i>	<i>0.0015</i>		<i>0.0140</i>	<i>0.0118</i>	<i>0.0108</i>	<i>0.0091</i>	<i>0.0077</i>
MCAP/GDP	0.0048	-0.0046	-0.0146	-0.0130	-0.0236		0.0299	0.0191	0.0120	0.0034	0.0020
<i>Std. error</i>	<i>0.0032</i>	<i>0.0036</i>	<i>0.0016</i>	<i>0.0025</i>	<i>0.0032</i>		<i>0.0119</i>	<i>0.0090</i>	<i>0.0076</i>	<i>0.0064</i>	<i>0.0085</i>
ln(# of stocks)	0.0156	-0.0416	-0.0143	-0.0083	-0.0218		-0.0118	-0.0186	-0.0128	-0.0120	-0.0050
<i>Std. error</i>	<i>0.0024</i>	<i>0.0012</i>	<i>0.0009</i>	<i>0.0010</i>	<i>0.0016</i>		<i>0.0079</i>	<i>0.0061</i>	<i>0.0055</i>	<i>0.0049</i>	<i>0.0045</i>
Official Liberalization Indicator	-0.0007	0.0257	0.0134	0.0063	0.0082		0.0167	0.0167	0.0130	0.0091	0.0037
<i>Std. error</i>	<i>0.0013</i>	<i>0.0019</i>	<i>0.0004</i>	<i>0.0008</i>	<i>0.0012</i>		<i>0.0059</i>	<i>0.0044</i>	<i>0.0037</i>	<i>0.0030</i>	<i>0.0025</i>
<u>Sample IV: 95 countries</u>											
1977-1997											
	k = 1	2	3	4	5	6	7	8	9	10	
	Weighting matrix IV										
Govt/GDP	-0.0348	-0.0395	-0.0238	-0.0207	-0.0095	-0.0087	-0.0015	0.0056	0.0139	0.0146	
<i>Std. error</i>	<i>0.0683</i>	<i>0.0520</i>	<i>0.0413</i>	<i>0.0349</i>	<i>0.0298</i>	<i>0.0289</i>	<i>0.0256</i>	<i>0.0235</i>	<i>0.0227</i>	<i>0.0228</i>	
TRADE/GDP	0.0507	0.0368	0.0205	0.0096	0.0053	0.0021	0.0010	0.0002	-0.0032	-0.0065	
<i>Std. error</i>	<i>0.0108</i>	<i>0.0082</i>	<i>0.0071</i>	<i>0.0067</i>	<i>0.0065</i>	<i>0.0058</i>	<i>0.0050</i>	<i>0.0049</i>	<i>0.0048</i>	<i>0.0047</i>	
Inflation	-0.0002	0.0000	0.0001	0.0003	0.0004	0.0005	0.0006	0.0006	0.0006	0.0031	
<i>Std. error</i>	<i>0.0003</i>	<i>0.0002</i>	<i>0.0002</i>	<i>0.0002</i>	<i>0.0002</i>	<i>0.0002</i>	<i>0.0003</i>	<i>0.0002</i>	<i>0.0000</i>	<i>0.0019</i>	
Priv Credit/GDP	-0.0173	-0.0142	-0.0066	0.0020	0.0095	0.0201	0.0239	0.0274	0.0303	0.0322	
<i>Std. error</i>	<i>0.0088</i>	<i>0.0073</i>	<i>0.0068</i>	<i>0.0068</i>	<i>0.0071</i>	<i>0.0077</i>	<i>0.0074</i>	<i>0.0076</i>	<i>0.0075</i>	<i>0.0073</i>	
Official Liberalization Indicator	0.0112	0.0123	0.0127	0.0115	0.0092	0.0067	0.0065	0.0049	0.0024	0.0002	
<i>Std. error</i>	<i>0.0037</i>	<i>0.0030</i>	<i>0.0026</i>	<i>0.0026</i>	<i>0.0028</i>	<i>0.0025</i>	<i>0.0024</i>	<i>0.0022</i>	<i>0.0025</i>	<i>0.0028</i>	

Table 9
Liberalization, growth and the cost of capital

	k = 1	2	3	4	5	k = 1	2	3	4	5
<u>Sample I: 28 countries</u>	Weighting matrix I					Weighting matrix IV				
1977-1997										
Govt/GDP	-0.0874	-0.1351	-0.1585	-0.1609	-0.1650	-0.0483	0.0475	0.0441	0.0339	-0.0072
<i>Std. error</i>	0.0447	0.0339	0.0279	0.0182	0.0152	0.0710	0.0641	0.0583	0.0536	0.0506
TRADE/GDP	0.0241	0.0170	0.0090	-0.0027	-0.0139	0.0313	0.0259	0.0155	0.0108	0.0093
<i>Std. error</i>	0.0063	0.0046	0.0034	0.0037	0.0031	0.0134	0.0120	0.0111	0.0102	0.0092
Inflation	-0.0004	-0.0003	-0.0001	0.0005	0.0006	-0.0005	-0.0001	0.0003	0.0006	0.0005
<i>Std. error</i>	0.0003	0.0002	0.0002	0.0002	0.0001	0.0006	0.0005	0.0004	0.0004	0.0003
Priv Credit/GDP	-0.0206	-0.0200	-0.0163	-0.0096	-0.0022	-0.0315	-0.0225	-0.0182	-0.0107	-0.0005
<i>Std. error</i>	0.0041	0.0030	0.0024	0.0025	0.0019	0.0083	0.0079	0.0072	0.0069	0.0063
MCAP/GDP	0.0084	0.0089	0.0128	0.0031	-0.0077	0.0249	0.0090	0.0061	0.0019	-0.0060
<i>Std. error</i>	0.0057	0.0045	0.0035	0.0035	0.0033	0.0124	0.0116	0.0104	0.0102	0.0097
ln(# of stocks)	-0.0088	-0.0071	-0.0079	-0.0070	-0.0034	-0.0143	-0.0139	-0.0100	-0.0088	-0.0072
<i>Std. error</i>	0.0019	0.0011	0.0012	0.0009	0.0006	0.0040	0.0037	0.0034	0.0032	0.0030
Official Liberalization Indicator	0.0216	0.0190	0.0102	0.0059	0.0015	0.0164	0.0208	0.0175	0.0145	0.0091
<i>Std. error</i>	0.0038	0.0022	0.0013	0.0014	0.0011	0.0066	0.0058	0.0051	0.0045	0.0039
Dividend Yield	-0.1026	-0.0951	-0.1992	-0.2361	-0.2104	-0.3060	-0.2158	-0.1176	-0.0681	-0.0582
<i>Std. error</i>	0.0478	0.0302	0.0210	0.0132	0.0135	0.0639	0.0533	0.0450	0.0386	0.0328
Div Yield*Lib Indicator	-0.1789	-0.1177	0.0058	0.1012	0.1473	-0.0557	-0.0868	-0.0942	-0.0851	-0.0170
<i>Std. error</i>	0.0554	0.0321	0.0265	0.0200	0.0173	0.0973	0.0847	0.0745	0.0652	0.0579
Forex vol	0.0009	0.1834	0.2231	0.1579	0.1095	0.1052	0.1439	0.1292	0.0903	0.0817
<i>Std. error</i>	0.0454	0.0204	0.0243	0.0154	0.0082	0.0456	0.0401	0.0365	0.0332	0.0302
<u>Sample II: 35 countries</u>										
1986-1997										
Govt/GDP	-0.0397	0.1606	0.3047	0.3582	0.3292	-0.0691	0.0445	0.0886	0.0543	0.0634
<i>Std. error</i>	0.0419	0.0208	0.0176	0.0152	0.0087	0.1079	0.0907	0.0794	0.0695	0.0587
TRADE/GDP	0.0457	0.0445	0.0588	0.0857	0.0848	0.0411	0.0609	0.0652	0.0598	0.0604
<i>Std. error</i>	0.0061	0.0034	0.0024	0.0026	0.0016	0.0190	0.0159	0.0143	0.0126	0.0102
Inflation	-0.0002	-0.0008	-0.0011	-0.0009	-0.0005	-0.0002	0.0002	0.0004	0.0005	0.0002
<i>Std. error</i>	0.0006	0.0003	0.0002	0.0001	0.0000	0.0007	0.0006	0.0005	0.0004	0.0003
Priv Credit/GDP	-0.0041	0.0003	-0.0048	0.0088	0.0116	-0.0457	-0.0388	-0.0304	-0.0159	-0.0035
<i>Std. error</i>	0.0032	0.0022	0.0015	0.0013	0.0006	0.0125	0.0115	0.0104	0.0093	0.0077
MCAP/GDP	0.0015	-0.0012	-0.0030	-0.0101	-0.0094	0.0241	0.0088	0.0051	-0.0001	0.0025
<i>Std. error</i>	0.0033	0.0018	0.0011	0.0013	0.0017	0.0115	0.0099	0.0086	0.0078	0.0106
ln(# of stocks)	-0.0144	-0.0086	-0.0064	-0.0080	-0.0109	-0.0127	-0.0090	-0.0056	-0.0021	-0.0046
<i>Std. error</i>	0.0018	0.0009	0.0005	0.0004	0.0004	0.0055	0.0047	0.0041	0.0037	0.0031
Official Liberalization Indicator	0.0205	0.0145	0.0074	0.0026	-0.0036	0.0255	0.0207	0.0146	0.0109	0.0050
<i>Std. error</i>	0.0034	0.0011	0.0009	0.0008	0.0004	0.0084	0.0067	0.0057	0.0049	0.0040
Dividend Yield	0.3176	0.3846	0.1985	0.1428	0.0612	0.0331	0.1298	0.1261	0.1498	0.1218
<i>Std. error</i>	0.0520	0.0221	0.0118	0.0084	0.0009	0.1203	0.0927	0.0759	0.0637	0.0496
Div Yield*Lib Indicator	0.0012	0.2402	0.2555	0.2483	0.2462	-0.5767	-0.3751	-0.2595	-0.1970	-0.0861
<i>Std. error</i>	0.0786	0.0369	0.0184	0.0150	0.0146	0.1996	0.1557	0.1299	0.1095	0.0885
Forex vol	0.0021	0.2014	0.3350	0.3189	0.2367	0.0629	0.1329	0.1260	0.1067	0.1061
<i>Std. error</i>	0.0366	0.0096	0.0096	0.0063	0.0075	0.0556	0.0472	0.0426	0.0377	0.0314

Table 10

Liberalization, growth and the cost of capital with alternative dividend yield specification

	k = 1	2	3	4	5		k = 1	2	3	4	5
<u>Sample I: 28 countries</u>	Weighting matrix I						Weighting matrix IV				
1977-1997											
Govt/GDP	-0.1185	-0.1509	-0.1532	-0.1715	-0.1783		-0.0490	0.0448	0.0417	0.0348	-0.0097
<i>Std. error</i>	0.0452	0.0332	0.0281	0.0178	0.0141		0.0708	0.0645	0.0591	0.0532	0.0496
TRADE/GDP	0.0166	0.0130	0.0076	-0.0020	-0.0125		0.0324	0.0262	0.0148	0.0104	0.0095
<i>Std. error</i>	0.0064	0.0044	0.0035	0.0035	0.0031		0.0135	0.0122	0.0113	0.0102	0.0090
Inflation	-0.0002	-0.0003	0.0000	0.0005	0.0006		-0.0005	-0.0001	0.0003	0.0006	0.0005
<i>Std. error</i>	0.0003	0.0002	0.0002	0.0001	0.0001		0.0006	0.0005	0.0004	0.0003	0.0003
Priv Credit/GDP	-0.0191	-0.0194	-0.0174	-0.0123	-0.0049		-0.0312	-0.0221	-0.0181	-0.0107	-0.0005
<i>Std. error</i>	0.0040	0.0027	0.0023	0.0023	0.0018		0.0083	0.0079	0.0073	0.0068	0.0062
MCAP/GDP	0.0066	0.0088	0.0141	0.0055	-0.0071		0.0266	0.0104	0.0069	0.0029	-0.0058
<i>Std. error</i>	0.0059	0.0044	0.0030	0.0035	0.0035		0.0123	0.0117	0.0105	0.0101	0.0095
ln(# of stocks)	-0.0085	-0.0070	-0.0082	-0.0071	-0.0029		-0.0140	-0.0138	-0.0099	-0.0089	-0.0072
<i>Std. error</i>	0.0019	0.0011	0.0011	0.0009	0.0007		0.0040	0.0037	0.0035	0.0032	0.0030
Official Liberalization Indicator	0.0150	0.0139	0.0089	0.0087	0.0064		0.0143	0.0173	0.0130	0.0102	0.0082
<i>Std. error</i>	0.0027	0.0014	0.0012	0.0012	0.0010		0.0052	0.0048	0.0043	0.0039	0.0035
Dividend Yield (alt definition)	-0.1852	-0.0827	-0.0058	-0.0092	-0.0267		-0.3412	-0.2436	-0.1258	-0.0705	-0.0556
<i>Std. error</i>	0.0518	0.0431	0.0204	0.0247	0.0179		0.0671	0.0558	0.0470	0.0393	0.0326
Div Yield*Lib Indicator (alt definition)	-0.0292	-0.0936	-0.2523	-0.2385	-0.1651		0.0391	-0.0028	-0.0599	-0.0663	-0.0212
<i>Std. error</i>	0.0630	0.0473	0.0297	0.0288	0.0238		0.1014	0.0878	0.0765	0.0650	0.0570
Forex vol	-0.0146	0.1887	0.2276	0.1577	0.0962		0.1091	0.1479	0.1326	0.0937	0.0821
<i>Std. error</i>	0.0463	0.0197	0.0231	0.0139	0.0077		0.0453	0.0402	0.0368	0.0329	0.0297
<u>Sample II: 35 countries</u>											
1986-1997											
Govt/GDP	-0.0489	0.1036	0.2460	0.2911	0.2536		-0.1167	0.0045	0.0505	0.0135	0.0310
<i>Std. error</i>	0.0334	0.0172	0.0173	0.0152	0.0084		0.1070	0.0910	0.0798	0.0695	0.0574
TRADE/GDP	0.0519	0.0365	0.0470	0.0780	0.0812		0.0555	0.0725	0.0770	0.0678	0.0652
<i>Std. error</i>	0.0051	0.0027	0.0028	0.0024	0.0017		0.0188	0.0160	0.0144	0.0126	0.0100
Inflation	-0.0003	-0.0008	-0.0009	-0.0006	-0.0002		-0.0002	0.0002	0.0004	0.0005	0.0002
<i>Std. error</i>	0.0005	0.0003	0.0002	0.0001	0.0000		0.0007	0.0005	0.0005	0.0004	0.0003
Priv Credit/GDP	-0.0003	-0.0009	-0.0047	0.0096	0.0141		-0.0402	-0.0352	-0.0268	-0.0140	-0.0020
<i>Std. error</i>	0.0029	0.0022	0.0012	0.0015	0.0008		0.0122	0.0114	0.0103	0.0092	0.0075
MCAP/GDP	0.0004	-0.0058	-0.0054	-0.0126	-0.0082		0.0316	0.0150	0.0091	0.0034	0.0030
<i>Std. error</i>	0.0029	0.0012	0.0012	0.0012	0.0017		0.0112	0.0099	0.0086	0.0076	0.0101
ln(# of stocks)	-0.0129	-0.0126	-0.0106	-0.0101	-0.0096		-0.0062	-0.0043	-0.0019	0.0012	-0.0024
<i>Std. error</i>	0.0016	0.0010	0.0005	0.0004	0.0005		0.0057	0.0049	0.0043	0.0037	0.0031
Official Liberalization Indicator	0.0183	0.0220	0.0155	0.0083	0.0007		0.0064	0.0080	0.0055	0.0037	0.0019
<i>Std. error</i>	0.0019	0.0009	0.0007	0.0004	0.0002		0.0058	0.0049	0.0043	0.0037	0.0030
Dividend Yield (alt definition)	-0.0257	0.0685	0.0725	0.0378	-0.0133		-0.2025	-0.1680	-0.1486	-0.1180	-0.0851
<i>Std. error</i>	0.0166	0.0107	0.0064	0.0047	0.0036		0.0585	0.0492	0.0426	0.0365	0.0301
Div Yield*Lib Indicator (alt definition)	0.2488	0.3756	0.2191	0.1325	0.0465		-0.1068	0.0296	0.0507	0.0890	0.0871
<i>Std. error</i>	0.0400	0.0215	0.0097	0.0076	0.0056		0.1054	0.0809	0.0661	0.0544	0.0421
Forex vol	0.0157	0.2102	0.3240	0.3017	0.2149		0.0533	0.1177	0.1074	0.0867	0.0874
<i>Std. error</i>	0.0284	0.0083	0.0108	0.0084	0.0081		0.0545	0.0471	0.0428	0.0375	0.0308

In these regressions, the alternative definition of the dividend yield is the dividend yield minus the unconditional mean of the dividend yield for each country.