

DEPARTMENT OF ECONOMICS

**THE POLITICAL ECONOMY OF
FINANCIAL LIBERALISATION**

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Abstract

Political economy theories of financial development argue that in countries where a narrow elite controls political decisions, financial development may be deliberately obstructed to deny access to finance to potential competitors. This paper empirically examines whether the level of liberalisation of the banking system, the stock market and capital account depend on regime characteristics, using panel data from 26 countries from 1973 – 1999. Our results show that it is predominantly fully democratic regimes that have liberalised financial systems. Countries that are not fully democratic have a lower probability of having liberal banking systems and capital accounts and this probability decreases with increasing democratisation. This suggests that the attractiveness of using financial levers to allocate funds in the economy increases with the amount of competition the government faces, although a fully competitive electoral system creates incentives to relinquish financial control.

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1: Introduction

The financial system serves to raise surplus funds from those agents whose current income exceeds their current consumption and passes them on as loans to agents who want to bring forward consumption against future income and firms, which have profitable opportunities for investment. This resource transfer can occur through the services of financial intermediaries such as banks, or through financial markets such as the stock and bond markets. There is a growing consensus that the development of an efficient and stable financial system is good for economic performance.¹ Much of the recent literature on financial development has therefore focused on the reason why some countries remain financially underdeveloped. There are a number of potential reasons for differences in financial development across countries, broadly falling into three interrelated groups. The literature on institutions and governance stresses that financial institutions need a legal and regulatory environment in which contracts can be enforced and bankers are given strong incentives to behave honestly.² The literature on law and finance, argues that specific types of legal system are more conducive to protecting investor rights and adapting the law to take into account financial innovation.³

The literature on the political economy of financial development, however, stresses the distributional consequences of financial development.⁴ Free financial markets provide resources to new entrants, who can then make other markets competitive.⁵ Conversely, financial underdevelopment means that access to economic opportunity is limited for those outside the incumbent elite. Governments representing small military / industrial elites, which would suffer economically from increased competition and consequently face an erosion of their political powers, may therefore oppose financial development, thereby restricting the entry of new domestic and foreign competitors.⁶

There is evidence that countries with more repressive political regimes have experienced slower development of financial markets.⁷ However, there is so far no direct evidence that less democratic governments deliberately pursue policies resulting in financial underdevelopment. Such policies are often summarised in the term “financial repression”, which refers to a mixture of interest rate controls, high reserve requirements on banks,

¹ See Levine (2003) and Demetriades and Andrianova (2004) for excellent recent overviews of the literature.

² e.g. Kaufmann *et al* (1999), Demirgüç-Kunt and Detragiache (1998), Andrianova *et al* (2003).

³ La Porta *et al* (1997, 1998), see Beck *et al* (2001a) for a review.

⁴ Rajan and Zingales (2003a), Girma and Shortland (2004), Oechslin (2005)

⁵ Rajan and Zingales (2003b)

⁶ See Acemoglu and Robinson (2000, 2002) on the resistance of particular political elites to innovation and economic development

⁷ Girma and Shortland (2004)

directed credits and controls on capital inflows. Control over financial resources can also be achieved by state ownership of banks. On the other hand financial underdevelopment may simply be a result of a policy of neglect, where government fail to create the institutional preconditions necessary for financial development to take off, such as respect for the rule of law, secure property rights, low levels of corruption as well as competent and effective prudential regulation and supervision.⁸

As time series data on state ownership of banks are very limited, we examine whether governments intentionally suppress financial development by utilising the Kaminski and Schmukler (2003) dataset on governments' financial liberalisation policies. The dataset tracks to what extent countries' financial systems are repressed or liberalised across three dimensions: banking sector, stock market and capital account liberalisation. This allows us to examine the political and economic factors which determine whether governments liberalise their financial sectors. We test the hypothesis that a country's political system is a significant determinant of a country's choice to have a financial system open to foreign participation. We are also interested in international political factors, as the pressure to liberalise can come from the international financial institutions as a condition of a structural adjustment programme, or be part of international agreements, such as the OECD, GATS, or the Maastricht agreement, which promote financial market integration among members. We also control for economic conditions, such as the countries' level of development, trade openness and fiscal performance.

So far economic research in the area of financial liberalisation has mainly considered its effects on financial stability and economic growth, rather than the causes of financial liberalisation.⁹ Research on the political economy of financial liberalisation has mainly been done in Politics and International Relations taking a case-study approach.¹⁰ Empirical research on the domestic and systemic causes of liberalisation has primarily been carried out in the area of capital account liberalisation.¹¹ A recent paper by Abiad and Mody (2005) on the timing of financial reform examines the effects of domestic and international conditions on the probability of financial sector reform taking place. It particularly stresses the

⁸ Rajan and Zingales (2003b) argue that a government's failure to create the institutions that underpin successful financial development is a "deliberate act of omission" and indicates a "policy of malign neglect" intended to preserve the privileges of incumbents. Similarly, Oechslin (2005) shows that a low degree of creditor protection may be a deliberate policy to shift resources towards an oligarchic elite.

⁹ Demirgüç-Kunt and Detragiache (1999) , Kaminski and Reinhart (1999), Stiglitz (2000), Kaminsky and Schmukler (2003)

¹⁰ See for example Haggard *et al* (1993); Haggard and Maxfield (1996) Pauly (1988), Loriaux *et al* (1997)

¹¹ Alesina *et al* (1994), Leblang (1997), Quinn and Inclan (1997), Quinn (2000), Brune *et al* (2001),

importance of international “learning effects”, which generated an increasing momentum of financial reform in the period 1973-1996, but the authors do not examine the importance of countries’ political regime characteristics.

This study contributes to the literature on the reasons for financial (under-) development by empirically examining if regime characteristics such as a country’s autocracy / democracy characteristics determine whether financial development is impeded through government controls on interest rates, credit controls and restrictions on deposits in foreign currencies in the banking sector, through limits on foreign ownership and profit repatriation in the stock market and by limiting international capital flows. The paper provides a nuanced picture of the politics of governments’ liberalisation policies. There are interesting nonlinearities and differences in the effects of the political system between the three dimensions of financial development. In particular we show that control over the banking system and capital account is relinquished mainly in fully democratic systems. As governments introduce increasing degrees of competition into the polity while falling short of a fully competitive political process, they are more likely to use financial repression of the banking system and capital controls to control the flow of resources. There is less clear evidence for the politicisation of stock market liberalisation, but if anything elites in countries which are not fully democratic *ceteris paribus* appear to be more likely to open stock markets to foreign investment.

The paper is organised as follows. Section 2 presents a brief review of the political economy literature on financial liberalisation. Section 3 describes the methodology and the data used. Results are presented and discussed in section 4 and section 5 concludes.

2: The Political Economy of Financial Liberalisation

The reasons for government intervention in financial markets may be either developmental or political (rent-seeking).¹² The developmental view of financial repression argues that underdeveloped financial sectors might be unable to finance socially desirable long-term projects. Government intervention in credit markets may help to overcome this problem for example through credit guarantees, while interest controls lower the costs of the

¹² See Haggard and Lee (1993) for a discussion

investment. Additionally the government may channel resources to particular “strategic” sectors as part of a country’s long-term development strategy¹³.

The political view of financial repression argues that governments may use control over financial flows to limit access to financial resources and corporate control to those within the elite and maximise the government’s ability to borrow domestically. In the political economy literature selective credit regulation is often seen as one of the government’s most powerful instruments for affecting economic outcomes in capitalist economies (e.g. Zysman (1983)). Credit directives or selective rediscounting can be used to channel financial resources to state-owned and other connected enterprises, or sectors on which the government relies for political support.¹⁴ Financial repression in the stock market refers to practices, which limit the ability of foreign investors to participate in the stock market and repatriate their investment and dividends. Elite control over productive capacity is likely to be diluted if regulations allow foreign investors to acquire controlling stakes in domestic enterprises. Finally, capital controls shield the governments’ economic policy from the scrutiny of international and domestic investors. Savings are retained domestically and the tax base is maintained both for direct taxation and seigniorage revenues, as capital flight is limited even when policies are clearly unsustainable.

Even if the government’s intervention in the financial system is intended to serve developmental purposes there are a number of problems. If deposit and lending rates are controlled at a low level then savings are discouraged and there is permanent excess demand for funds.¹⁵ Banks have little incentive to allocate loans to sectors not covered by government guarantees, although entrepreneurs in these sectors might propose higher return projects, leading to inefficient credit allocation. In the favoured sectors investment is not based on the true cost of capital and may be unnecessarily capital intensive. Moreover, government policy biases (e.g. import substitution) may fail to deliver sustainable economic growth. Even if the policy is successful¹⁶, once particular sectors grow on the back of preferential treatment problems of rent-seeking and regulatory capture arise. “Strategic sectors” tend to be oligopolistic and therefore have considerable lobbying power, due to their financial resources and their ability to overcome collective action problems. Regulators often lack appropriate incentives and information and can be bribed to act on behalf of the regulated industries, rather than maximising social welfare. If favoured sectors would be bankrupted without

¹³ Early examples of such policies are the German and Japanese industrialisations and more recently Taiwan, Korea, Singapore and Hong Kong.

¹⁴ E.g. to preserve employment

¹⁵ McKinnon (1973), Shaw (1973)

¹⁶ As it arguably has been in countries such as Japan, Taiwan and South Korea

access to cheap finance, preferential loans often continue to preserve employment and financial stability. Thus states tend to be weak vis-à-vis the interest groups generated by the credit policy, resulting in continued policy favours.

Therefore, regardless of the initial intentions of governments credit policies generally generate a skewed production structure and “strategic interdependence” between the government and the favoured sectors¹⁷. This over time results in potentially severe economic distortions. The theory of financial liberalisation based on McKinnon (1973) and Shaw (1973) thus focuses on the economic benefits of liberalisation. It argues that abolishing financial repressive practices such as interest rate controls should result in financial deepening, as more deposits are attracted into the financial sector by positive real interest rates. Higher interest rates improve the efficiency of credit allocation, as low productivity projects are no longer viable. This should eliminate excess demand for funds and hence the need for arbitrary or government directed credit allocation. Capital account and stock market liberalisation attract additional resources for investment but at the same time constrain governments to orthodox fiscal and monetary policies favoured by foreign investors.¹⁸

However, the research on the effects of financial liberalisation shows that financial liberalisation often has adverse consequences, particularly when liberalisation occurs before financial regulation and supervision are sufficiently effective to prevent moral hazard among banks.¹⁹ In many less developed countries improperly sequenced reforms have resulted in financial instability, banking and debt crises and financial disintermediation, rather than delivering financial development and economic growth. Nonetheless, we assume that when governments chose to liberalise their financial systems, their intentions were to improve financial development.²⁰

Given that financial liberalisation is a political choice that has both efficiency and distributional (and therefore political) consequences, we will now look at the different political and economic factors that may play a part in a government’s choice to continue to repress or to liberalise the financial system.

¹⁷ Haggard and Maxfield (1993)

¹⁸ The arguments for capital account liberalisation are based on decreasing marginal returns to capital, which make investment in countries with high labour to capital ratios attractive to both borrowers and lenders. Developing countries receive funds for investment which could not be raised domestically, while lenders receive higher returns than in their home markets.

¹⁹ Demirgüç-Kunt and Detragiache (1999) , Kaminski and Reinhart (1999), Stiglitz (2000), Kaminsky and Schmukler (2003)

²⁰ I.e. we do not believe that governments cynically chose financial liberalisation to undermine financial development in the medium term.

2:1 Domestic Political Factors

Financial repression tends to privilege a narrow elite with access to investment capital, corporate control and foreign exchange licences, while the costs of the resulting economic distortions are borne by the population at large. On the one hand it could be argued that the degree of the political elite's insulation from electoral competition should be negatively associated with financial development. Autocratic governments tend to be accountable to a narrow military / industrial elite, which is likely to seek to control over financial resources to prevent entry and competition. Democratisation reduces the power of the privileged few, which benefit from financial repression. In competitive elections governments can be punished for economic mismanagement and creating or preserving a skewed income distribution at the ballot box.

On the other hand there is the argument of the "political replacement effect". Acemoglu and Robinson (2003) argue that if economic and institutional changes increase the probability that the incumbent political elite will lose political power and future rents, innovations will be adopted by "political elites that are subject to competition and those that are highly entrenched" while "(e)lites that are entrenched, but still fear replacement... will block innovation."²¹ Financial development is an example of an economic innovation which dilutes the privilege of incumbents.²² This argument would suggest that the pattern of financial liberalisation is non-linear, and both extremes of the political spectrum – full democracies and extreme autocracies - are more likely to adopt financial liberalisation than intermediate regimes, where the political elite is more concerned about remaining in power.

Secondly, we consider the effect of major political instability on financial sector policies. The more unstable a regime is, the greater the incentive to control financial resources in the economy to be able to buy off potential threats to its tenure. Unstable systems are also more vulnerable to capital flight and changes in investor confidence and capital controls may be implemented to hinder capital outflows.

Thirdly governments differ in their policy preferences depending on which socioeconomic interest within the population they represent. The political partisanship literature assumes that right-wing governments are supported by the highly skilled and holders of financial assets.²³ Owners of capital generally prefer not to be restricted in how they allocate their capital and will therefore support increasing financial globalisation.

²¹ Acemoglu and Robinson (2003), p3

²² Free financial markets enable new entrants to set up enterprises competing with established elites in product markets. See discussion in Rajan and Zingales (2003a and 2003b)

²³ Quinn and Inlcan (1997)

Moreover, financial liberalisation restricts the government's macro-economic policies to those preferred by investors, such as price stability and lower taxes, again benefiting domestic holders of capital. Quinn and Inclan (1997) term this the "partisan macro-policy effect".²⁴

However, this preference of holders of capital should be particularly strong in countries which are rich in capital. Holders of capital in labour-rich countries on the other hand might resist financial liberalisation, as they benefit from capital scarcity in the domestic market, as the rate of return to capital in a closed domestic market exceeds the rate in the rest of the world. Left wing governments representing labour interests may be unwilling to adopt policies of liberalisation, which may result in a period of unemployment as previously favoured sectors contract. However, in labour-rich countries labour will benefit from financial liberalisation in the medium to long term as foreign investment will be attracted and employment created. One would therefore expect that poor countries with left-wing governments would welcome liberalisation – Quinn and Inclan's (1997) "partisan relative price effect".²⁵ Given that centre parties rarely form on class lines but on ethnic and confessional lines, we follow the existing literature and make no predictions regarding their attitudes to financial liberalisation.²⁶

Finally, we consider the political power of private sector actors to influence government policy. Pressure to liberalise finance is likely to come from the services sector. Financial intermediaries benefit from financial liberalisation, which raises interest rate margins, presents arbitrage opportunities between domestic and international interest rates and allows firms to serve multinational clients.²⁷ Pressure to continue repression is likely to come from the manufacturing and agricultural sectors in the economy, which have been the main beneficiaries of selective credit policies.²⁸ However in repressed financial systems the banking sector might form a coalition with its clients to continue the profitable *quid-pro-quo*s associated with preferential credit policies²⁹ and government credit guarantees to cover non-performing loans in bank portfolios. For banks' effectiveness in lobbying for liberalisation the

²⁴ Quinn and Inclan (1997) p779

²⁵ In contrast to this view Leblang (2003) argues that left-wing governments gain more than right-wing governments from sending credible signals that they are following orthodox policies.

²⁶ Quinn and Inclan (1997)

²⁷ However, banks might resist the liberalisation of foreign bank entry, as any gains from capital account liberalisation would at least partially accrue to foreign financial intermediaries. This is particularly likely in developing countries, where foreign competitors would have access to lower cost funds and superior technology as well as being perceived as more reliable, allowing them to "cherry-pick" among business opportunities. Haggard and Maxfield (1996)

²⁸ Haggard and Maxfield (1993)

²⁹ Mainly cheap access to funds through interest rate controls, government deposits and automatic rediscounting at the central bank

degree of market concentration in the banking sector is important, as it determines how easily banks can overcome collective action problems.³⁰

2:2 International Political Factors

During the period under investigation international diplomacy was a force for financial liberalisation. Initially the drive towards liberalisation came mainly from the United States. Its highly developed financial firms and successful manufacturing companies secured diplomatic support for the opening of foreign financial systems and capital accounts so that enterprises could invest and compete in profitable markets abroad. Amongst developed countries reciprocal access and mutual non-discrimination became the norms in international agreements. For example the obligations entailed in the formation of the OECD were instrumental in the liberalisation of Japanese finance.³¹ As regards gaining market access to developing countries the US made financial liberalisation part of the NAFTA agreements and entered into bilateral negotiations about financial policy with South Korea and Taiwan.³² The US was also a main driver of the services agenda (GATS) in the General Agreement on Trade and Tariffs. All countries subscribing to the GATS make commitments to extensive liberalisation of domestic financial systems, granting access to other member countries on the basis of mutual non-discrimination.

Financial liberalisation in Europe was completed due to the agenda to create an integrated financial market in the EU to complement the common market for goods. This culminated in the Maastricht treaty, which obliged countries to dismantle capital controls and open financial systems to competition from other EU members.

International pressure for financial liberalisation in developing countries is manifest in the conditionality attached to the loans of the International Financial Institutions. Especially in the 1990s financial liberalisation was part of the “Washington Consensus” and structural adjustment credits often entailed specific requirements regarding financial sector reform.³³

2:3 Domestic Economic Factors

Given that financial repression may have development goals, we would expect that while the economy performs well and economic growth is fast there will be little pressure for a change of policy. Once the economic distortions imposed by financial repression undermine

³⁰ Haggard and Maxfield (1993)

³¹ Pauly (1988)

³² Haggard and Maxfield (1996)

³³ Abiad and Mody (2005)

economic performance we may observe financial liberalisation, for example as a policy response to a slow growth and a low level of domestic savings and investment.

High fiscal deficits are expected to have negative effects on the probability of financial liberalisation, and financial liberalisation can in turn be expected to provide incentives for governments to lower their budget deficits. In a repressed financial system investors have few alternatives to holding government debt and the government can use seigniorage finance to tax domestic savings. Liberalization is likely to destabilise the *status quo* with investors choosing to place their funds into high yield instruments elsewhere. While liberalisation allows governments to access the international financial markets to cover the deficits instead of putting the burden on the domestic economy, this comes at the price of international scrutiny of government policy. Since the beginning of the third world debt crisis of 1982 international investors have tended to quickly withdraw capital from developing countries where there was concern about the long-term sustainability of debt burdens. Overall one would expect high spending governments in developing countries to resist financial liberalisation, which on balance is likely to undermine the government's domestic taxation capacity more than the country would attract in foreign funds.

In addition to the above factors financial liberalisation may be influenced by trade openness. Firstly, the main supporters of liberalisation are likely to be internationally orientated businesses (importers, exporters, multinationals), who are interested in making foreign investments, repatriating their profits and in depositing foreign exchange earnings with reliable financial intermediaries. The more open a country is to foreign trade, the larger the influence of the tradables sector is likely to be.³⁴ Secondly trade openness undermines the effectiveness of capital controls, as traders can under-invoice exports and over-invoice imports and bank any differences abroad.

Finally we consider the country's choice of exchange rate regime as a factor determining policy especially with respect to capital account liberalisation. If a country chooses an exchange rate peg, capital controls may be used to preserve a degree of monetary policy independence without resulting in immediate large-scale speculative attacks.

2.4 International Economic Factors

The political economy literature at least partially attributes the trend towards financial liberalisation to the increasing opportunities offered and constraints imposed by the international financial markets³⁵. Increased international financial integration gives financial

³⁴ Rajan and Zingales (2003a, 2003b)

³⁵ Haggard and Maxfield (1993), Perez (1998)

asset holders³⁶ the opportunity to increase profits beyond the constraints imposed by domestic savings and investment opportunities. They therefore lobby for regulatory change, both regarding government control over domestic financial flows and barriers to international capital mobility. If the government does not respond to these demands, technological progress and the growth of the offshore markets has greatly enhanced the ability of investors to circumvent capital controls and place their funds abroad. Governments have therefore become less and less able to impose the cost of financial repression on financial asset holders and are forced to alter their strategies by the “uncoordinated exit and evasion by financial market players”³⁷.

Abiad and Mody (2005) furthermore stress the importance of “learning” and competition effects in financial sector reform. Governments learn from the experience of other countries (particularly within regions) and are also competing for international financial capital. Abiad and Mody (2005) demonstrate that successful liberalisation in the regional leader country has significant positive effects on the probability of financial sector reform.

Financial and balance of payments crises are expected to have an ambiguous effect on financial liberalisation. On the one hand financial fragility may trigger reversals in liberalisation. This may be to stem capital outflows or because governments realise that financial liberalisation has been “premature” and that regulation needs to be strengthened before banks can tap into the international financial markets again.³⁸ On the other hand a balance of payments or currency crisis might leave the government little option but pursue policies that are likely to reassure and therefore attract international investors³⁹. Such policies are likely to be reinforced if the government is also subject to pressures from the IFI as discussed above.

2:5 Domestic Institutions

The final factor in the analysis of financial liberalisation is the issue of institutional quality. Banking systems become fragile unless they are well regulated and monitored by a non-corrupt supervisory authority. Financial liberalisation exacerbates adverse selection problems as interest rates are liberalised and the intermediation of foreign funds can lead to additional risks, such as maturity and currency mismatch. Countries which have liberalised their financial systems without putting in place an effective system of prudential regulation

³⁶ Not just banks but also investors and multinational corporations

³⁷ Perez (1998) p 761

³⁸ For example the tightening of capital control in Malaysia in the wake of the Asian currency crisis of 1997 / 1998

³⁹ See for example Maxfield (1996) on Mexican policies in the wake of the 1982 debt moratorium and Haggard and Maxfield (1996)

first have at best failed to reap the benefits of financial globalisation and at worst have suffered major financial crises.⁴⁰ Even though for much of the period under investigation policy advice regarding financial liberalisation has disregarded these institutional fundamentals we control for regulatory quality in our regressions.

3 Methodology and Data

3:1 Methodology

We examine the probability of both particular financial sectors and the financial system as a whole reaching a certain degree of openness. In order to investigate the determinants of financial liberalisation in the three sub-sectors (banking / stock market / capital account) we employ the ordered logit and probit models, which are designed for categorical data where there is a natural ordering of the categories. Our dependent variable captures the extent of financial repression (full liberalisation, partial liberalisation or repression) and as such falls into 3 ordered categories. For convenience we index the three categories by a numerical variable $y=0$ (full liberalisation), 1 (partial liberalisation) and 2 (repression). Note that ordinary regression techniques would have been unsuitable in this setting because differences in the values of y denote only differences in ranking and not meaningful quantitative differences.

The ordered probit and logit models are specified in term of the latent regression model

$$y^* = X'\beta + \varepsilon \quad (1)$$

For banking system liberalisation and capital account liberalisation the regressor vector X consists of:

$X = \{\text{polity, political orientation, regional leadership, regime stability, IMF dummy, openness, sectoral concentration, fiscal deficit, pegged currency dummy, crisis dummies, } \textit{per capita} \text{ GDP, year-trend}\}$

For stock market liberalisation the regressor vector X consists of:

$X = \{\text{polity, political orientation, regional leadership, regime stability, IMF dummy, openness, sectoral concentration, crisis dummies, } \textit{per capita} \text{ GDP, year-trend}\}$ ⁴¹

⁴⁰ Demirgüç-Kunt and Detragiache (1999)

⁴¹ We do not hypothesize that governments repress the stock market in order to finance fiscal deficits or in defence of currency pegs.

In Equation (1) y^* is unobservable and is a measure of a “depth of liberalisation”. Instead we observe

$$\begin{aligned} y &= 0 \text{ if } y^* \leq 0 \\ &= 1 \text{ if } 0 < y^* \leq \mu_1 \\ &= 2 \text{ if } \mu_1 < y^* \leq \mu_2 \end{aligned}$$

where the μ s are unknown ‘threshold’ parameters to be estimated along with β (see for example, Greene, 2003 Chapter 21). When the stochastic error term ε in Equation (1) is normally distributed (has a logistic distribution) we get the ordered probit (logit) model. Denoting by Φ the assumed cumulative distribution function; the probability of financial liberalisation can be obtained as

$$\begin{aligned} P(y = 0 | X) &= \phi(-X'\beta) \\ P(y = 1 | X) &= \phi(\mu_1 - X'\beta) - \phi(-X'\beta) \\ P(y = 2 | X) &= 1 - \phi(\mu_2 - X'\beta). \end{aligned}$$

In our result section we report the marginal effects of a unit change in each of the regressors for the three probabilities. We did not estimate fixed effects ordered probit or logit models because these are not yet fully developed in the theoretical literature. The estimation of nonlinear fixed effects models is tricky, because the resulting estimators are generally inconsistent due to the so-called incidental parameters problem. Therefore we pooled the data to estimate our models and computed robust standard errors to ensure that the statistical inferences we conduct are valid.

We also examine the determinants of full and partial liberalisation across the three sectors using a standard panel probit / logit analysis, using the same explanatory variables as we use in the regressions examining banking sector and capital account liberalisation.

$X = \{\text{polity, political orientation, regional leadership, regime stability, IMF dummy, sectoral concentration, crisis dummies, fiscal deficit, pegged currency dummy, trade openness, (per capita GDP), year-trend}\}$

3:2 Data

3:2:1 Dependent Variable

We utilise the dataset constructed by Kaminsky and Schmukler (2003) (henceforth K&S) providing monthly data on financial liberalisation, capital account liberalisation and stock market liberalisation in 28 countries observed from January 1973 to June 1999⁴². Each index takes values 1 / 2 / 3 representing fully liberalised, partially liberalised and repressed sectors respectively. The distribution of the variable is summarised in table 1. For a banking system to be considered fully liberalised there must be no controls on interest rates, no government directed credit allocation and deposits in foreign currencies must be permitted. A fully liberalised stock market allows foreign equity investment and places little restrictions on capital and profit repatriation. The capital account is considered fully liberalised, if banks can borrow abroad freely and there are no restrictions on capital outflows or special exchange rates for capital account transaction.

For the second part of the analysis we use the aggregate financial liberalisation variable. This considers a country's financial system to be fully liberalised once at least two sectors are fully liberalised and the third one is partially liberalised. A country is classified as partially liberalised, if at least two sectors are partially liberalised – i.e the fully liberalised countries are a subset of the partially liberalised countries. As political regime data are only available on an annual basis, we use end of year observations.

3:2:2 Independent Variables

Domestic Politics

To proxy for the accountability of the government we use the “combined polity score” -*polity2* - as measured by the Polity IV database (Marshall *et al* 2003).⁴³ *Polity2* is designed to record the regime's institutionalized authority characteristics. Firstly, the database records a *democracy score* (ranging from 0 to 10) for each country, based on the openness of the political process (i.e. the extent to which citizens can effectively express preferences about policies and leaders through elections) and the degree of restraints on the powers of the chief executive. The maximum score would be allocated to a democracy in which the executive is chosen in free and fair elections with universal suffrage and there are substantial checks and

⁴² 11 European, 8 Asian, 7 Latin American, 2 North American. However, we can only use 26 countries in the analysis, as there are no political data on Hong Kong and the IMF and World Bank provide no data on Taiwan - see table 1 for a full list.

⁴³ *Polity2* imputes normal ranges of polity scores for special polity conditions such as periods of transition and periods of collapse of the central authority. See Polity IV project Data-set Users Manual.

balances constraining the chief executive's power.⁴⁴ Secondly each country has an *autocracy score* (again ranging from 0 to 10) based on how political leaders are selected (e.g. by designation or chosen from closed lists), the constraints on their powers and the regulation and competitiveness of political participation.⁴⁵ Polities may have mixed authority traits and can have intermediate scores on both the democracy and authority scores.⁴⁶ Subtracting the autocracy score from the democracy score of a country creates the *polity2* variable. Higher scores of *polity2* therefore indicate a higher degree of democracy. The *polity2* variable appears to be a reasonable proxy of the extent to which the economically less privileged can express their dissatisfaction at the ballot box.⁴⁷ We therefore use the *polity2* variable to test whether the incumbent elite is more likely to block financial reform in more authoritarian systems, as opposition demands for equal access to resources can be ignored. A positive coefficient on the *polity2* variable would be evidence of a democratisation effect, which enhances economic opportunities in line with political representation.

To test whether financial liberalisation displays the pattern of a “political replacement effect” we also created a dummy variable (*highdemoc*) for countries in which the system is perfectly democratic (democracy = 10) as these are the polities in which political elites face effective electoral competition. A negative coefficient on the *polity2* variable and a positive coefficient on *highdemoc* would indicate that *polity2* captures the “entrenchment” of political elites, with steps towards democratisation increasing the chance of a government losing power.

Governing party preferences (*leftwing* and *rightwing*) are from the Clarke *et al* (1999) database and take the value 1 in each year that a right-wing / left wing government was in power. The proxy is based on party name based on the Western European left-right spectrum⁴⁸ and may not be appropriate in the context of less developed countries. For example one may incorrectly classify populist governments as right-wing. The left and right-wing dummies are interacted with GDP/capita to capture the different preferences of labour

⁴⁴ The scale therefore discriminates between developed democratic systems on the basis of their limitation on the powers of the chief executive, for example France's democracy score increased with the onset of “cohabitation” during the Mitterrand presidency.

⁴⁵ Regulation refers to who participates in the political process (has the right to vote), competitiveness to whether the opposition is suppressed (single party states) or restricted.

⁴⁶ For example South Africa in the 1980s has a democracy score of 7 and an autocracy score of 3, reflecting that within a relatively democratic system political participation was restricted to white South Africans.

⁴⁷ We tested whether there is an aggregation bias in the polity variable. As the effects of increasing democracy are not necessarily symmetric with increasing concentration of power in autocracies, we experimented using the democracy and autocracy components of the *polity2* variable separately. However, the effect of the two variables does appear to be symmetric, producing very similar coefficients of opposite sign and the null hypothesis that $\beta_{\text{democracy}} + \beta_{\text{autocracy}} = 0$ cannot be rejected in any regression specification. We therefore use the combined polity variable in the regressions.

⁴⁸ For example “conservative” / “socialist” / “labour”.

and capital depending on whether an economy is relatively rich in labour or rich in capital, which captures the “partisan relative price effect”⁴⁹.

Our proxy for political instability is the number of years that have elapsed since a regime transition: the variable “*durable*” from Polity IV⁵⁰. This is to capture the problems that are associated with governing in an unstable political environment in which several groups may be struggling violently for supremacy, as well as the likely negative effect of regime change on financial and supervisory institutions. We take the natural logarithm of the variable in the regressions to address distribution problems (*Indurable*).

To capture the intensity of pressures for financial liberalisation we use the share of value added in the services sector as a percentage of GDP from the World Development Indicators. Data on the share in value of the manufacturing sector are less widely available. Given that both the manufacturing and the agricultural sector may exert pressure for preferential loans, the service sector share is a good proxy for the pressure for liberalisation. Endogeneity problems are likely to be limited as the services sector comprises not just financial services but retail, tourism, transport, health, education and other government services. We are not aware of a panel dataset on banking sector concentration which matches our time period and therefore cannot test whether highly concentrated banking sectors exert pressure for continued government intervention.⁵¹

International Politics

We capture international political pressure for financial liberalisation using dummy variables. The IMF dummy is equal to one for years in which countries had an IMF programme.⁵² We also experimented with an interaction dummy between IMF and 1990s to capture the “Washington consensus” but did not arrive at significantly different conclusions.

A dummy variable for OECD members taking the value 1 from the year of their membership⁵³ is highly significant in the regressions. However, the OECD dummy is very highly correlated with the dummy for highly democratic countries (correlation 0.86) and also with a dummy for countries having achieved a high level of development (correlation 0.90) and is therefore not a “pure” proxy for the liberalisation pressures associated with OECD

⁴⁹ Quinn and Inclan (1997) p776

⁵⁰ Regime change refers not to regular transfer of executive power, but major changes in the polity and interruptions in a regime such as coups, civil wars or foreign occupations. We use the durability variable from the 2003 version of the database, in which durability has been re-calculated and extended back to the beginning of the data series.

⁵¹ Empirical literature in the area of banking sector concentration uses an averaged concentration variable based on data from 1989-1996 – see e.g. Deidda and Fatouh (2002).

⁵² From IMF MONA database.

⁵³ Only two countries in the sample joined the OECD during the period under investigation: Mexico in 1994 and Korea in 1996

membership. We have therefore omitted it from the reported results. A dummy for Maastricht taking the value one for the Maastricht signatory countries in the sample after 1992 results in perfect predictability for 48 observations and again is excluded from the reported results.⁵⁴ Finally all the countries in the K&S sample of countries were members of the GATS from 1 January 1995, so there is no cross-country variation in the sample.

Domestic Economics

Data on trade openness (imports + exports as a share of GDP) are taken from the World Development Indicators. We use a three-year lagged average of fiscal imbalances (as a share of GDP) from Ghosh *et al* (2003). The dummy variable for whether a country is on a *de jure* pegged exchange rate regime is also taken from the dataset of Ghosh *et al* (2003)⁵⁵.

Low investment, savings and economic growth rates should be considered as a reason for a government to adopt a policy of financial liberalisation. However, in our sample there are only a small number of liberalisation episodes⁵⁶ and once we exclude the countries that have already liberalised from the analysis there are not enough observations for meaningful econometric analysis. When we study the level of liberalisation, however, we do not include the above variables as they are endogenous to financial liberalisation – countries with liberal financial systems would be expected to generate higher savings rates, investment and growth.

International Economics

As we have a relatively short time series of 26 years, we do not empirically examine the contribution of specific changes in the international financial market as a driving force for domestic financial liberalisation. Any changes at the level of the international system are summarised in a year trend included in the regression.

We do include a dummy variable to capture international learning and competition effects: LFL (leader fully liberalised) takes the value 1 if the at least one country in the group (G7, Europe, South America, and Asia) had a fully liberalised financial system in the relevant year.⁵⁷

The currency and banking crisis dummies, which capture the effect of crises on government financial policy, are taken from the dataset of Ghosh *et al* (2003).

⁵⁴ Denmark, Germany, Spain, France, Ireland, Italy, Portugal, UK

⁵⁵ The exchange rate regime variable is based on countries' declarations in the IMF Exchange Arrangements and Exchange Restrictions.

⁵⁶ Ca 10 per cent of total observations in the banking sector and capital account variable and ca 5 per cent of stock market observations

⁵⁷ In almost all cases at least one country in each group was at least partially liberalised.

Domestic Institutions

Datasets of institutional quality have been collected since the 1980s (e.g. the ICRG dataset), but were initially limited in scope and report data on very broad definitions of institutional quality, such as whether the “rule of law” applies in a country. More recently some data have become available on “regulatory quality” (e.g. Kaufmann (1999) from 1996), which are more relevant to the question of whether the banking system is well supervised. Given the paucity of institutional data in the early period we use GDP *per capita* as a very broad proxy for a country’s institutional development, as this is available for the whole period and cross section of the panel. We note, however, that political freedoms and economic performance are correlated. The correlation coefficient between \ln *per capita* GDP and polity2 is 0.686 and between \ln *per capita* GDP the high democracy dummy is 0.7565 – reflecting the superior economic performance of the liberal Western democracies. The inclusion of *per capita* GDP is therefore likely to undermine the importance of the political variables. We use the natural log of *per capita* GDP in 1995 US\$ from the World Development Indicators.

3:3 Descriptive Statistics

The descriptive statistics reported in Table 2 lend preliminary support to some of the hypotheses discussed above. On average the financial systems considered as liberalised across the three dimensions are significantly more democratic, contain a higher proportion of fully democratic countries and are more stable. Liberalisation appears to be associated with regional leadership across all aspects of the financial sector. The liberalised systems also had a higher share of services in the economy and a higher level of GDP *per capita*. Openness has the expected distribution for stock markets and capital accounts, but in the banking sector it appears to be the less open countries which are more liberal.

On the other hand the IMF and the government preference variables do not have the expected distribution– the less liberalised systems have a higher proportion of IMF programmes and have more right wing governments. There are no significant differences among liberalisation scores regarding fiscal deficits. Banking crises seem to occur more often in liberal financial systems, while currency crises occur more often in repressed financial systems.

As regards capital account openness, as expected the liberal regulations are observed in more open economies with floating currencies and their governments have a slightly better fiscal performance. *Per capita* GDP is not significantly different between partially open and closed capital accounts.

4: Results

The results of the sectoral analyses are presented in tables 3-5. We report the marginal effects for each of the independent variables for each category of liberalisation / repression.

Polity2 appears to have a negative and significant effect on banking system and capital account liberalisation. Our interpretation of this result is that incremental changes towards democratisation may make it more important for the government to keep control of financial levers to remain in power. When the *polity2* variable is disaggregated into its democracy and autocracy components, increasing autocracy lowers the probability of banking system repression – highly autocratic governments have direct ways of suppressing the opposition and do not need to use indirect ways of supporting their power base. This result is in line with Acemoglu and Robinson's (2003) "political replacement effect", if democratisation undermines the entrenchment of the political elite. A high level of democracy has a positive effect on both these aspects of financial liberalisation – a country with a high level of democracy has a higher probability of the three aspects of finance being fully liberalised (this is highly significant in the banking sector regressions). It appears that fully democratic governments are willing (or are forced) to relinquish control over finance. Statistically the effect of a fully autocratic regime (a *polity2* score of -10) on banking system and capital account liberalisation is comparable to that of a fully democratic regime.⁵⁸

For stock markets we find less evidence for a politicisation of the decision to repress or liberalise. The *polity2* variable is not statistically significant. The high democracy dummy hovers just around the 10% significance threshold, with a negative effect indicating that the advanced democracies have delayed opening up their stock markets compared to the less democratic emerging markets. A possible explanation for these results could be that elites in autocracies and "semi-democracies" benefit from a policy to "open up cosmetically to foreign financing without deep-rooted reform".⁵⁹ Here the incumbent elite gains disproportionately from any capital inflows which are generated, because foreign investors focus on large and long-established firms to circumvent the problems of continued poor enforcement and poor information due to poor accounting standards.

Competition and learning effects as captured by the group leader(s)' liberalisation status tends to be highly significant, raising the probability of other countries also implementing reforms across all three aspects of the financial system. This confirms the results of Abiad and Mody (2005).

⁵⁸ If we include the square of *polity2* instead of the high democracy dummy in regressions, it is not statistically significant.

⁵⁹ See Rajan and Zingales (2003) p119

As for the interaction terms of *per capita* GDP and government orientation the results suggest that both left and right-wing governments become more likely to put restrictions on the banking sector and stock market as the country grows richer. This result is as predicted for the left-wing variable, but contradicts the intuition for right-wing governments. The most likely explanation is that the classification by party name is not appropriate outside Western Europe and North America and that some populist governments are incorrectly classified as right-wing.

The durability variable is only statistically significant in the capital account liberalisation regressions, having the expected effect: unstable governments have incentives to prevent capital flight.⁶⁰

Contrary to expectations (and the results of Abiad and Mody (2005)) there is no statistical evidence that the IMF pushes countries to liberalise their financial systems. This result holds for the “pure” IMF variable, as well as when it is interacted with a dummy for the 1990s –countries with an IMF programme are less likely to be fully liberalised. However, the result is likely to stem from the fact that it is the countries with the most pervasive economic problems that have an IMF programme in the first place. In these countries a certain degree of financial repression may in fact be advisable and therefore tolerated by the IMF.⁶¹ We explore this further in table 7, where we examine the experience of developing countries only.

There is support for the lobbying hypothesis: countries with large service sectors (i.e. countries with relatively small manufacturing and agricultural sectors, which may demand financial support) are more likely to have liberalised domestic financial sectors. For the stock market and capital account regressions these effects are mostly insignificant, however.

The crises dummies suggest that currency crises are associated with repressed banking systems and banking crises with open capital accounts. The direction of causality could run either way in that currency crises can cause the government to intervene in the banking sector or a weak banking sector can cause a run on the currency. Similarly a prematurely liberalised capital account may be the underlying cause of a banking crisis, or the capital account opening may occur in the wake of a banking crisis to attract foreign capital.

It appears that rich countries are more likely to have liberal capital accounts and stock markets, with the coefficient in the stock market regressions being highly significant.

⁶⁰ The results in the capital account regressions are more or less consistent with the findings of Brune *et al* (2001), who found that fixed exchange rates and a lower level of development reduce capital account openness and democracy promotes liberalisation, particularly in developing countries. However, trade integration increased capital account openness in the Brune *et al* regressions.

⁶¹ Abiad and Mody (2005) show that an IMF programme raises the probability of banking sector reform in any given month. However, their observations are of relatively small reform steps covering 6 dimensions of banking sector performance. Such incremental reforms are only picked up in the K&S dataset if certain thresholds are reached.

However, the opposite appears to be the case for the banking system, where rich countries are *ceteris paribus* less likely to liberalise. These contradictory results suggest caution about interpreting the *per capita* GDP variable as a proxy for the “institutional fundamentals”, which make successful financial liberalisation more likely.

In the banking sector and capital account regressions fiscal prudence is associated with a higher probability of having a liberal financial system (marginally significant), though the causality may run from financial liberalisation to fiscal austerity. Governments which tap the international markets are constrained in their fiscal policy choices as they are subject to the scrutiny of international investors. Governments do not appear to tap the international markets to cover large deficits at home, but instead finance large fiscal deficits by selling bonds in repressed domestic financial markets.

A pegged exchange rate regime has the expected effect of raising the probability of repression – banking sector repression and capital account controls are a way of combining fixed exchange rates with a degree of monetary policy autonomy.⁶² From the stock market regression there is some (marginally significant evidence for the hypothesis that economies more open to international trade are more likely to liberalise, but in the banking sector regressions the effect is the opposite with more open countries more likely to repress banking.

Finally there is evidence for a trend of increasing financial liberalisation at the system level, as with each passing year the probability of financial liberalisation rises in each sector (almost always highly statistically significant).

The results of the analyses of the aggregate variables are summarised in tables 6 and 7. Table 6 uses the full set of countries, while table 7 looks only at middle and lower income countries. In table 6 we report two model specifications for full liberalisation – one including and one excluding the regional leadership variable. The results of the 3-sector analyses are generally confirmed in the bigger picture analysis. Incremental moves to democratise have negative effects on the probability of full liberalisation and even partial liberalisation, whereas the highest level of democracy has a positive effect. However, in the full liberalisation regression these results are only statistically significant if the LFL variable is excluded. There is a high correlation between the high democracy and the LFL variable, as the G7 and European countries display both characteristics simultaneously in most of the sample period. The LFL variable is highly significant and has a large effect in all regression specifications,

⁶² The results in the capital account regressions are more or less consistent with the findings of Brune *et al* (2001), who found that fixed exchange rates and a lower level of development reduce capital account openness and democracy promotes liberalisation, particularly in developing countries. However, trade integration increased capital account openness in the Brune *et al* regressions.

suggesting that countries have tended to follow the example regional / group leaders, either because of learning or because of competition effects. Rich countries are more likely to implement policies of liberalisation, unless partisan governments are in power – such governments are *ceteris paribus* more likely to repress the financial sector. Countries with strong service sectors and strong fiscal performances are less likely to be financially repressed. IMF programmes, regime durability and trade openness have ambiguous effects on the degree of liberalisation of the financial system, with neither coefficients nor significance levels stable across the different specifications. The general time trend towards financial liberalisation regardless of country characteristics is, however, reconfirmed.

In Table 7 the high democracy dummy was reclassified as taking the value 1 if the political regime scored a value of 8 or 9 on the polity2 score (LDC highdem), as none of the countries at the middle and lower income level in the sample had a democracy score of 10. The left and right-wing dummies were excluded, as the classification of parties according to their name is based on the Western European left-right spectrum, which has little relevance in Latin America and Asia. Again, democratisation has negative effects on the probability of financial liberalisation, but at the higher end of the democracy spectrum this trend is reversed and the relatively more democratic countries have an increased probability of being fully liberalised. Regional leadership appears to be a strong and highly significant factor in pushing countries towards liberalisation. Fiscal prudence and the size of the service sector have also a positive effect and the developing countries have become more likely to liberalise over time. Countries with higher *per capita* GDP appear to be more likely to fully liberalise. The main difference to the results reported for the whole sample is that developing countries with an IMF programme have a raised probability of being fully liberalised. This indicates that the previous results were driven by the problem that the IMF lends to developing countries with pervasive economic problems.

Robustness of results and regression diagnostics

We estimated each model using both logit and probit analysis. In general both coefficients and significance levels are broadly similar regardless of the methodology used⁶³. The regression diagnostics included in each table also indicate that the two methods yield very similar results. We provide a number of regression statistics. In the sectoral analyses we report the Pseudo R-squared for each regression and an estimate of the percentage of each positive outcome that is correctly predicted by the equation. It is clear that the regression

⁶³ The main exceptions are government balances and openness in tables 6 and 7.

equation performs best at predicting outcomes for the large groups of liberalised and repressed systems and considerably less well on the small group of intermediate cases. The model has the greatest explanatory power in the banking sector regressions and slightly less in the stock market and capital account liberalisation regressions.

In the aggregate analysis the “partial liberalisation” variable includes both fully and partially liberalised systems (65% of total observations) and hence the problem of dealing with a relatively small group of outcomes does not arise. Here we report the positive predictive value (the probability that the positive outcome is correctly predicted), the negative predictive value (the probability that the negative outcome is correctly predicted) and the total percentage of correctly classified outcomes. When generating the predictions we disregard the country fixed effects. For the fully liberalised systems around 86% of observations are correctly predicted, for the partially liberalised systems this percentage is slightly lower at 83%. Predictive power is even higher in the emerging markets sample with in excess of 90% of full liberalisation observations correctly predicted.

Similar results are obtained in the regressions including all the countries and the regression using only the lower and middle income countries in the sample, indicating that it is appropriate to analyse countries at different stages in their economic development together – though caution needs to be exercised regarding the interpretation of the IMF programme dummy as discussed above.

Conclusions

The literature on financial development argues that some types of governments may have an interest in using financial repression to channel financial resources to favoured sectors, firms and individuals. Our analysis provides empirical evidence for Acemoglu and Robinson’s (2002) “political replacement effect”. In our sample highly democratic countries are the most likely to have fully liberalised financial systems across the three dimensions of banking system, stock market and capital account liberalisation. However, liberalisation does not receive a positive impact from democratisation unless regimes become fully democratic. It appears that governments in intermediate regimes (neither fully autocratic nor fully democratic) use financial intermediaries to pay off their supporters. Such policies are probably unnecessary in fully autocratic systems, which have more direct ways of suppressing the opposition. In highly democratic systems they may be counterproductive: if the electoral system is fully competitive, governments risk handing control over finance to the opposition in case of electoral defeat, making it more difficult to regain control at the next election.

On the other hand some of the results indicate that stock market liberalisation is less strongly associated with specific regime types. Open stock markets and repressed banking may be a sensible government strategy in countries with a limited degree of democracy. Foreign equity investment in countries with low accounting standards disproportionately flows towards established businesses with demonstrable collateral – to the benefit of the existing elite⁶⁴. Meanwhile directed credits can be used to keep failing businesses run by the established elite afloat and preserve employment. Examples of countries in the sample in which stock market liberalisation preceded banking system liberalisation are Brazil, Hong Kong, Malaysia, Thailand and Venezuela.

There is also support for the hypothesis that governments may be lobbied by the manufacturing and agricultural sectors for continued financial repression, or indeed by a competitive services sector for increasing liberalisation. Governments appear to be more likely to have liberal regimes when their fiscal performance is solid and tend to protect currency pegs through capital controls. Finally we showed that international pressures at the system level and through regional learning and competition effects, as well as IMF “encouragement” for financial sector reform in developing countries have created an increasing momentum for financial liberalisation over the past 30 years.

In conclusion, the paper provides empirical evidence that elites, which are neither fully entrenched nor subject to intense electoral competition, act as a barrier to financial development. Governments appear to have deliberately used policies of financial repression in the banking system and controls on capital account transactions to control who receives financial resources and escape international scrutiny of their policies. Avenues for future research will be to extend the dataset to include a larger variety of emerging markets and particularly countries at the lower end of the democracy score. This will make it possible to examine the effect of autocracy on financial development in greater detail.

⁶⁴ For example the Russian “oligarchs” who owned the oil, gas and other natural resource extraction sectors in post-Soviet states have used the liberalisation of stock markets to sell some of their shares and diversify into other assets – e.g. Roman Abramovich.

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Table 1**Distribution of the Dependent Variable**

	Banking sector liberalisation	Stock market liberalisation	Capital account liberalisation	Aggregate Variable
Fully liberalised	52%	56%	41%	41%
Partially liberalised	16%	18%	23%	24% ⁶⁵
Repressed	32%	26%	36%	35%

Country List

Argentina, Brazil, Canada, Chile, Colombia, Finland, France, Germany, Indonesia, Ireland, Italy, Japan, Korea, Malaysia, Mexico, Norway, Peru, Philippines, Portugal, Spain, Sweden, Thailand, UK, USA, Venezuela

⁶⁵ “Partially liberalised” in the aggregate analysis includes the full and partial liberalisation outcomes, providing 65% of observations

Table 2**Descriptive Statistics**

Banking System	Mean Liberal	Mean Partial	Mean repressed
<i>polity2</i>	7.1387	4.5138	3.6161
highdemoc	0.5392	0.4123	0.2888
LFL	0.9031	0.5965	0.3319
rightwing	0.5056	0.4037	0.3081
durable	41.822	32.67	20.564
IMF	0.1806	0.1491	0.2759
govbalav3	-0.0288	-0.026	-0.0221
servi_gdp	57.856	53.7749	51.7395
bnkdur	0.2823	0.1468	0.17647
curdur	0.1156	0.1101	0.1448
gdppcap	14794.69	13275.48	9554.426
openness	0.5536	0.5731	0.6846
Stock Market	Mean Liberal	Mean Partial	Mean repressed
<i>polity2</i>	8.2932	5.552	0.61538
highdemoc	0.6005	0.384	0.13846
LFL	0.8897	0.6	0.2667
rightwing	0.393	0.5565	0.41026
durable	47.91099	24.136	13.1128
IMF	0.1201	0.216	0.3795
servi_gdp	59.7727	50.0747	49.3211
bnkdur	0.2727	0.09649	0.2099
curdur	0.1155	0.1053	0.1547
gdppcap	16973.12	9877.455	5680.067
openness	0.6506	0.5881	0.4422
Capital Account	Mean Liberal	Mean Partial	Mean repressed
<i>polity2</i>	8.1704	4.9317	3.6236
highdemoc	0.61824	0.3354	0.3063
LFL	0.9088	0.7081	0.3949
rightwing	0.498	0.4063	0.3764
durable	55.9037	23.4969	18.4465
IMF	0.125	0.1988	0.2989
servi_gdp	61.5921	51.5907	51.0766
bnkdur	0.2891	0.1854	0.1829
curdur	0.1122	0.1126	0.144
govbalav3	-0.0248	-0.0278	-0.0274
jurepeg	0.1769	0.3113	0.3373
openness	0.6563	0.5946	0.5044
gdppcap	18114.19	9028.711	9234.536

Table 3**Banking Sector Liberalisation: Ordered Logit / Probit**Marginal Effects including *per capita* GDP and left and right preferences

	Liberalised		Partially Liberalised		Repressed	
	Ord Logit	Ord Probit	Ord Logit	Ord Probit	Ord Logit	Ord Probit
<i>polity2</i>	-0.0159*** (0.0063)	-0.0175*** (0.0056)	0.0066*** (0.0027)	0.0058*** (0.0020)	0.0093*** (0.0038)	0.0117*** (0.0038)
Highdemoc‡	0.3054*** (0.0828)	0.3188*** (0.07564)	-0.1208*** (0.0302)	-0.1037*** (0.0269)	-0.1846*** (0.0571)	-0.2151*** (0.0563)
LFL	0.1579** (0.0653)	0.1475** (0.0606)	-0.0586*** (0.0218)	-0.0437*** (0.0166)	-0.0994*** (0.0453)	-0.1038** (0.0454)
Leftpref	-0.0311*** (0.0083)	-0.0277*** (0.0078)	0.0128*** (0.0039)	0.0092*** (0.0030)	0.0183*** (0.0048)	0.0185*** (0.0052)
Rightpref	-0.027*** (0.0082)	-0.0233*** (0.0077)	0.0111*** (0.0038)	0.0077*** (0.0029)	0.0159*** (0.0048)	0.0155*** (0.005)
Lndurab	0.0492 (0.033)	0.0357 (0.0291)	-0.0203 (0.014)	-0.0119 (0.01)	-0.0289 (0.0193)	-0.0239 (0.0192)
IMF‡	-0.1863*** (0.0751)	-0.1638** (0.0661)	0.0637*** (0.022)	0.045*** (0.016)	0.1226** (0.0533)	0.1188** (0.0518)
Jurepeg‡	-0.2431*** (0.0661)	-0.2191*** (0.0583)	-0.0774*** (0.0171)	-0.0561*** (0.0128)	0.1657*** (0.0543)	0.1631*** (0.0493)
Govbalav3	1.04 (0.6429)	1.0706* (0.5826)	-0.4283* (0.2611)	-0.3558* (0.1931)	-0.6115 (0.3885)	-0.7147 (0.3964)
Services / GDP	0.02*** (0.0076)	0.0152*** (0.0058)	0.0082** (0.0034)	0.0051** (0.0021)	-0.0118*** (0.0044)	-0.0102*** (0.0039)
Bnk. duration‡	0.0314 (0.0734)	0.0219 (0.0632)	-0.0132 (0.0319)	-0.0074 (0.022)	-0.0182 (0.0416)	-0.0145 (0.0412)
Cur. duration‡	-0.1968*** (0.0756)	-0.2013*** (0.0683)	0.0616*** (0.0169)	0.0477*** (0.0117)	0.1352** (0.062)	0.1536*** (0.0599)
Openness	-0.2828*** (0.1066)	-0.2788*** (0.0994)	0.1165*** (0.0457)	0.0927*** (0.0355)	0.1663*** (0.0638)	0.1861*** (0.0666)
lnGDP/cap	-0.1566*** (0.0624)	-0.1198*** (0.0482)	0.0645** (0.0275)	0.0398** (0.0172)	0.0921*** (0.0364)	0.08*** (0.0319)
Year	0.0609*** (0.0053)	0.0586*** (0.0063)	-0.0251*** (0.0037)	-0.0194*** (0.0036)	-0.0358*** (0.0038)	-0.0391*** (0.0045)
Number of Observations	592	592	592	592	592	592
Pseudo R-squared	33.82	34.02	33.82	34.02	33.82	34.02
Pr (1 if +)	0.861	0.863	0.21	0.206	0.649	0.657

(‡) dy/dx is for discrete change of dummy variable from 0 to 1

*significant at 10%; ** significant at 5%; *** significant at 1%

Table 4**Stock Market Liberalisation: Ordered Logit / Probit**Marginal Effects including *per capita* GDP and left and right preferences

	Liberalised		Partially Liberalised		Repressed	
	Ord Logit	Ord Probit	Ord Logit	Ord Probit	Ord Logit	Ord Probit
<i>polity2</i>	0.0044 (0.0051)	0.004 (0.0048)	-0.0019 (0.0023)	-0.0014 (0.0016)	-0.0024 (0.0029)	-0.0026 (0.0031)
Highdemoc‡	-0.1812* (0.1046)	-0.1623* (0.0936)	0.0756* (0.0415)	0.0538* (0.0304)	0.1056* (0.0642)	0.1086* (0.0643)
LFL	0.3013*** (0.0586)	0.2793*** (0.0551)	-0.1017*** (0.0199)	-0.0743*** (0.0153)	-0.1995*** (0.048)	-0.205*** (0.0462)
Leftpref	-0.03*** (0.0089)	-0.028*** (0.00819)	0.0131*** (0.0044)	-0.0097*** (0.0031)	0.0169*** (0.0051)	0.0183*** (0.0053)
Rightpref	-0.0513*** (0.008)	-0.0474*** (0.0073)	0.0224*** (0.005)	0.0164*** (0.0035)	0.0289*** (0.0049)	0.031*** (0.0048)
Lndurab	0.0449 (0.0314)	0.04 (0.0275)	-0.0196 (0.0137)	-0.0138 (0.0096)	-0.0253 (0.018)	-0.0261 (0.0182)
IMF‡	-0.0975 (0.0629)	-0.1031* (0.0574)	0.388* (0.0231)	0.0314** (0.0157)	0.0587 (0.0458)	0.0717* (0.0424)
Services / GDP	0.0064 (0.0053)	0.0073 (0.0045)	-0.0028 (0.0022)	-0.0025 (0.0016)	-0.0036 (0.003)	-0.0047 (0.003)
Bnk. duration‡	0.0562 (0.0622)	0.0433 (0.0577)	0.0257 (0.0297)	-0.0156 (0.0219)	-0.0306 (0.0327)	-0.0276 (0.0359)
Cur. duration‡	-0.0462 (0.0745)	-0.0526 (0.0672)	0.0191 (0.029)	0.0167 (0.0195)	0.0271 (0.0456)	0.0359 (0.0479)
Openness	0.1802 (0.1136)	0.1733* (0.0978)	-0.0787* (0.0485)	-0.0599* (0.0308)	-0.1015 (0.0651)	-0.1135* (0.0655)
lnGDP/cap	0.2828*** (0.0486)	0.2577*** (0.0426)	-0.1235*** (0.0317)	-0.089*** (0.0199)	-0.1592*** (0.0272)	-0.1687*** (0.0271)
Year	0.0341*** (0.0046)	0.0322*** (0.0048)	-0.0149*** (0.0036)	-0.0111*** (0.0028)	-0.0192*** (0.0029)	-0.0211*** (0.0029)
Number of Observations	592	592	592	592	592	592
Pseudo R-squared	32.31	32.71	32.31	32.71	32.31	32.71
Pr (1 if +)	0.842	0.844	0.19	0.188	0.657	0.643

(‡) dy/dx is for discrete change of dummy variable from 0 to 1

*significant at 10%; ** significant at 5%; *** significant at 1%

Table 5**Capital Account Liberalisation: Ordered Logit / Probit**Marginal Effects including *per capita* GDP and left and right preferences

	Liberalised		Partially Liberalised		Repressed	
	Ord Logit	Ord Probit	Ord Logit	Ord Probit	Ord Logit	Ord Probit
<i>polity2</i>	-0.0209*** (0.0059)	-0.0169*** (0.0052)	-0.0011 (0.0013)	-0.0004 (0.0007)	0.022*** (0.0062)	0.0173*** (0.0054)
Highdemoc‡	0.1364** (0.0696)	0.0898 (0.0718)	0.0057 (0.0088)	0.0015 (0.004)	-0.1422 (0.0728)	-0.0914 (0.0731)
LFL	0.2258*** (0.0453)	0.209*** (0.0466)	0.0472** (0.0223)	0.0256* (0.0145)	-0.2729*** (0.0619)	-0.2346*** (0.0577)
Leftpref	-0.0078 (0.0075)	-0.005 (0.0068)	0.0004 (0.0006)	0.0001 (0.0002)	0.0082 (0.0073)	0.0051 (0.0069)
Rightpref	-0.0065 (0.006)	-0.0052 (0.0057)	0.0003 (0.0005)	0.0001 (0.0003)	0.0068 (0.0063)	0.0053 (0.0059)
Lndurab	0.0553** (0.0262)	0.0512** (0.0249)	-0.003 (0.0037)	-0.0011 (0.0022)	-0.0583** (0.0275)	-0.0552** (0.0253)
IMF‡	-0.0027 (0.0517)	-0.0077 (0.0505)	0.0001 (0.0025)	0.0002 (0.0017)	0.0028 (0.0542)	0.0079 (0.0521)
Jurepeg‡	-0.0503 (0.0485)	-0.0277 (0.0475)	-0.0051 (0.0084)	-0.0011 (0.0031)	0.0553 (0.0563)	0.0288 (0.0504)
Govbalav3	0.7561* (0.4716)	0.7378 (0.4606)	0.0405 (0.0589)	0.0165 (0.0337)	-0.7967 (0.5078)	-0.7543 (0.4735)
Services / GDP	0.0077 (0.0049)	0.008* (0.0045)	0.0004 (0.0006)	0.0002 (0.0004)	-0.0081 (0.0052)	-0.0081* (0.0046)
Bnk. duration‡	0.1382** (0.0604)	0.1093** (0.0536)	-0.0089 (0.0134)	-0.0049 (0.0074)	-0.1295*** (0.0498)	-0.1044*** (0.0477)
Cur. duration‡	-0.0022 (0.05593)	-0.0125 (0.0559)	-0.0001 (0.0035)	-0.0004 (0.0025)	0.0024 (0.0629)	0.0129 (0.0583)
Openness	-0.0464 (0.0695)	-0.0429 (0.0681)	-0.0025 (0.0044)	-0.0009 (0.0023)	0.0488 (0.0728)	0.0438 (0.0695)
lnGDP/cap	0.0519 (0.00365)	0.0564* (0.034)	0.0028 (0.0037)	0.0012 (0.0025)	-0.0546* (0.0383)	-0.0577* (0.0348)
Year	0.0263*** (0.004)	0.0254*** (0.0037)	0.0014 (0.0017)	0.0006 (0.0011)	-0.0277*** (0.0043)	-0.026*** (0.0039)
Number of Observations	592	592	592	592	592	592
Pseudo R-squared	21.41	20.88	21.41	20.88	21.41	20.88
Pr (1 if +)	0.695	0.659	0.301	0.281	0.632	0.623

(‡) dy/dx is for discrete change of dummy variable from 0 to 1

*significant at 10%; ** significant at 5%; *** significant at 1%

Table 6**Full and Partial Liberalisation: Logit / Probit**

	Full liberalisation		Full liberalisation		Partial liberalisation	
	Logit	Probit	Logit	Probit	Logit	Probit
<i>Polity2</i>	-0.3609*** (0.0749)	-0.1248*** (0.0314)	-0.0419 (0.0556)	-0.0239 (0.0275)	-0.0978*** (0.0291)	-0.56*** (0.0158)
Highdemoc ‡	1.916** (0.9174)	1.2387** (0.5454)	0.6343 (0.5597)	0.2869 (0.3060)	1.0471** (0.48)	0.6182** (0.2676)
LFL			4.0848*** (0.9963)	2.22*** (0.428)	1.4877*** (0.319)	0.8346*** (0.1771)
Leftpref	-0.0874 (0.0712)	0.04444 (0.0429)	-0.1311*** (0.0432)	-0.0775*** (0.0252)	-0.1442*** (0.0441)	-0.077*** (0.0244)
Rightpref	-0.114 (0.072)	-0.0419 (0.0372)	-0.2352*** (0.0442)	-0.137***9 (0.0249)	-0.1783*** (0.0416)	-0.0954*** (0.0226)
Lndurab	-0.6773** (0.1857)	-0.1992 (0.1857)	-0.2836 (0.0178)	0.166* (0.1002)	-0.2291 (0.178)	-0.0954 (0.0922)
IMF ‡	-0.6414 (0.3431)	-0.7075** (0.3431)	0.756* (0.3431)	0.3968* (0.2419)	-0.342 (0.3246)	-0.228 (0.1803)
Jurepeg ‡	-1.8356*** (0.6068)	-0.7199** (0.3092)	-2.1395*** (0.52)	-1.169*** (0.2633)	-0.1812 (0.3466)	-0.0973 (0.1827)
Govbalav3	39.0356*** (7.5651)	16.9498*** (3.4483)	21.1537*** (5.0347)	11.3356*** (3.4483)	1.1713 (3.3749)	0.3417 (1.8281)
Services/GDP	0.2252*** (0.0578)	0.0976*** (0.0244)	0.1042*** (0.0357)	0.0586*** (0.0184)	0.0644** (0.0268)	0.0366*** (0.0145)
Bnkdur ‡	-0.5425 (0.5627)	-0.1098 (0.2779)	0.6224 (0.4709)	0.3258 (0.2497)	0.5512 (0.3453)	-0.2643 (0.1867)
Curdur ‡	-0.7096 (0.5855)	-0.4387 (0.3438)	-0.1573 (0.4521)	-0.0986 (0.2447)	-0.6727* (0.368)	-0.4322 ** (0.2064)
Openness	-0.6071 (1.4485)	0.0107 (0.5141)	-1.2211* (0.6591)	-0.6368* (0.3568)	-0.1776 (0.5882)	-0.0901 (0.3132)
Ln GDP/cap	2.9479*** (0.5661)	1.1284*** (0.2427)	1.1513*** (0.343)	0.6652*** (0.1787)	0.1603 (0.2472)	0.1056 (0.1316)
Year	0.6464*** (0.0799)	0.3235*** (0.0334)	0.2673*** (0.0345)	0.1553*** (0.0173)	0.2257*** (0.0279))	0.1289*** (0.0153))
Number of Observations	592	592	592	592	592	592
Pr (+ if 1)	82.6%	81.94%	82.57%	82.3%	85.6%	85.38%
Pr (- if 0)	85.3%	85.48%	88.6%	88.3%	77.62%	77.51%
% correctly predicted	84.12	84.3	86.15	86.15	82.77	82.6

(‡) dy/dx is for discrete change of dummy variable from 0 to 1

*significant at 10%; ** significant at 5%; *** significant at 1%

Table 7**Full and Partial Liberalisation: Lower and Middle Income Countries: Logit / Probit**

Marginal Effects

	Full liberalisation		Partial liberalisation	
	Logit	Probit	Logit	Probit
<i>Polity2</i>	-0.2155** (0.1002)	-0.1003** (0.0485)	-0.1243*** (0.0474)	-0.0629** (0.0258)
LDC Highdem	2.00** (1.0109)	0.8665* (0.5131)	0.954 (0.6437)	0.4217 (0.3395)
LFL	4.5074*** (1.4077)	2.1771*** (0.5578)	2.2385*** (0.4492)	1.2413*** (0.2426)
Indurab	0.0749 (0.223)	0.0481 (0.1274)	-0.2058 (0.2282)	-0.1085 (0.1186)
Imf ‡	1.6488*** (0.5201)	0.8846*** (0.2799)	-0.2308 (0.3614)	-0.1225 (0.2036)
Jurepeg ‡	0.3509 (0.5697)	0.1856 (0.3299)	1.6276*** (0.5649)	0.8662*** (0.3018)
Govbalav3	-0.4884 (9.2477)	1.1757 (4.8118)	-17.109*** (6.3747)	-9.2206*** (3.4481)
Services/GDP	0.1125*** (0.0391)	0.057*** (0.0215)	0.0065 (0.0359)	0.0068 (0.0184)
Bankdur ‡	-0.5203 (0.6749)	-0.1544 (0.3346)	-0.5312 (0.3928)	-0.3414 (0.2214)
Curdur ‡	0.0159 (0.6346)	0.0759 (0.3513)	-0.5194 (0.5208)	-0.3139 (0.298)
Openness	1.4861* (0.8585)	0.6367 (0.4417)	0.6740 (1.0205)	0.2682 (0.4906)
Ln GDP/cap	1.5923*** (0.5448)	0.793*** (0.2653)	-0.4422* (0.2627)	-0.2464* (0.1447)
Year	0.1864*** (0.0536)	0.1072*** (0.0265)	0.2369*** (0.0503)	0.1313*** (0.026)
Number of Observations	281	281	281	281
Pr (+ if 1)	83.58	81.43	87.02	87.88
Pr (- if 0)	92.99	93.36	78.00	79.19
% correctly predicted	90.75	90.39	82.21	83.27

 (‡) dy/dx is for discrete change of dummy variable from 0 to 1

 *significant at 10%; ** significant at 5%; *** significant at 1%
