

# STAYING CLOSE TO HOME: FOREIGN BANK PARTICIPATION IN SYNDICATED LOANS\*

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## Abstract

We examine the propensity of Australian banks to participate in syndicated loans to corporate borrowers from 12 countries in the Asia-Pacific region. We find that these banks participate more often, in greater numbers and in greater quantity for loans made to Australian and New Zealand borrowers. However, much of this apparent bias can be attributed to differences in familiarity characteristics – legal systems, culture, banking presence and distance from Australia. As these characteristics are likely to proxy for information availability, our results provide further support for the view that home bias phenomena are primarily due to information problems.

JEL classification: G11, G15, G21

Keywords: home bias; syndicated loans; Asia-Pacific; country characteristics

# STAYING CLOSE TO HOME: FOREIGN BANK PARTICIPATION IN SYNDICATED LOANS

## 1 Introduction

One of the most enduring puzzles in finance is the so-called ‘home bias’ — the observed tendency of individuals, households and fund managers to invest disproportionately in the equity securities of firms located in their own countries. Early attempts to explain this phenomenon focussed on the costs of cross-border investments - taxes, transactions costs, capital controls, exchange rate risk, and non-tradable goods (e.g., Black, 1974; Stulz, 1981; Adler and Dumas, 1983; Stockman and Dellas, 1989). However, recent work documenting a similar preference for local assets *within* countries (e.g., Coval and Moskowitz, 1999; Huberman, 2001; Grinblatt and Keloharju, 2001; Massa and Simonov, 2006) suggests that the source of the bias may lie more in information advantages associated with greater familiarity.

In this paper, we attempt to shed further light on the home bias phenomenon by examining cross-country *institutional* investment in a *non-equity* asset class – the participation of banks in syndicated loans. In particular, we address two questions. First, is such investment also characterized by a home bias? That is, do banks participate disproportionately in loans to domestic borrowers? On the one hand, banks should face fewer information problems than individual investors, suggesting that they should be less prone to a domestic bias. On the other hand, they are also, presumably, more risk neutral, which weakens the case for cross-country diversification.<sup>1</sup> Second, to what extent can such a bias be attributed to country characteristics? Specifically, is the magnitude of any bias against foreign borrowers greater for borrowers from countries with less familiar institutions and cultures? And to what extent can variation in country-familiarity ‘explain’ the bias?

Several recent papers also examine various aspects of international bank lending decisions. Carey and Nini (2007) focus primarily on the pricing of syndicated loans, but also note that there appears to be a ‘home bias’ in banks’ decisions to participate. For example, 91% of United States syndicated lending volume is to domestic borrowers; for European banks, the corresponding figure is a less-marked, but still high, 51%. Houston et al. (2007) examine the choice of lead arranger by borrowing firms, and find that this decision too shows evidence of a domestic bias. For example, firms from the two countries most active in the syndicated loan market – the United States and Japan – use only local lead arrangers approximately 90% of the

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<sup>1</sup>Carey and Nini (2007) note that bank risk neutrality calls into question the use of the term ‘bias’. However, banks do appear to be diversified in their lending decisions – across borrowers if not across countries. For this reason, and for the sake of convenience, we use the ‘bias’ terminology throughout.

time. They also find that large firms with substantial foreign assets are more likely to utilise a lead bank from a different world region. Finally, Buch et al. (2005) consider the full asset portfolios (i.e., not just syndicated loans) of banks in France, Germany, the United Kingdom and the United States and report significant over-weightings of domestic assets relative to a mean-variance benchmark. In addition, they find some evidence suggesting that the magnitude of any under-weighting is negatively related to language and legal system similarity, i.e., banks shy away from investments in countries with less familiar institutions.<sup>2</sup>

This paper examines the propensity of banks from a single country – Australia – to participate in syndicated loans to borrowing firms from 12 countries in the Asia-Pacific region. Our objective is, first, to determine whether or not there exist any systematic differences in Australian bank participation rates according to country of borrower, and second, to investigate whether any such differences can be explained by variations in country familiarity characteristics. In contrast to Carey and Nini (2007), our focus is on the participation decision of individual banks rather than the equilibrium pricing of loans. And whereas Houston et al (2007) examine borrowing firm decisions about banks, we investigate the actions of lending banks with regard to borrowing firms. Unlike Buch et al. (2005), we restrict our analysis to syndicated loan assets; as Carey and Nini point out, much bank lending activity is necessarily domestic, so the syndicated loan portion of portfolios provides a better indication of international asset allocation decisions and of any country or regional preferences. By focusing on the loan participation activities of Australian banks alone, we avoid having to deal with complications created by differences in *lender* country characteristics. Moreover, Australian banks have a significant presence in the Asia-Pacific region, an area characterized by major differences in language, culture, legal and banking systems, and distance from Australia. Thus, we have an ideal setting for investigating the role of such characteristics on bank participation in loan syndicates.

We find that Australian banks exhibit a marked preference for Australian borrowers: at least one of the four major Australian banks participates in 95% of such loans, as opposed to 7% of loans to borrowers from the other 11 countries. However, this ‘bias’ is by no means uniform across these 11 countries. In particular, Australian banks participate in 96% of loans to firms from Australia’s closest neighbour – New Zealand – but in only 3% of loans to the remaining – Asian – countries. As New Zealand is not only geographically closest to Australia, but also the most familiar to Australian lenders in terms of language, culture, legal framework and banking system, we hypothesize that the apparent bias against Asian borrowers can be explained by these factors, possibly as proxies for information availability. We find some evidence to support this view: a different legal system, a weaker Australian banking presence, and greater distance from Australia are all associated with less Australian participa-

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<sup>2</sup>Champagne and Kryzanowski (2007) and Esty (2004) examine the impact of past alliances and creditor protection respectively on loan syndicate participation, but do not investigate how such relationships influence banks’ preferences for domestic vis-a-vis borrowers.

tion and can account for at least some of the bias. After controlling for such factors, Australian banks still participate less often in loans to Asian borrowers, but their average *quantity* of participation is statistically equal to that for Australia and New Zealand borrowers.

In the next section, we describe the data used in this study and outline some of its properties. Section 3 contains our principal results and section 4 offers some concluding remarks.

## 2 Data and Introductory Results

Our initial sample contains all 17708 syndicated loans listed in Loan Pricing Corporation's Dealscan database as having been made between January 1999 and September 2006 to borrowers from 12 countries in the Asia-Pacific region: Australia, Hong Kong, India, Indonesia, Japan, Malaysia, New Zealand, Philippines, Singapore, South Korea, Taiwan and Thailand. In what follows, we often find it convenient to refer to the 10 countries not including Australia and New Zealand as 'Asia'. We use the 1999-2006 period for two primary reasons. First, loan volumes are small in many of our sample countries prior to the mid-1990s. Second, short term dislocations in several Asian economies during the 1997 currency crisis are likely to have had an idiosyncratic impact on the syndicated loan market in those countries. After eliminating loans made to other financial institutions and deleting observations with missing data, our final sample consists of 4661 loans with a total value of \$454.9 billion.<sup>3</sup>

Table 1 summarizes the geographical spread of these loans by country of borrower: approximately 47% of the total number are made to Japanese firms followed (in descending order) by firms from Taiwan (14.2%), Australia (9.4%), South Korea (8.6%) and Hong Kong (7.8%). Although Japanese and Taiwanese firms also borrow the most by value, their average loan sizes (\$97.2 million and \$83.3 million respectively) are dwarfed by borrowers from Australia (\$217.6 million), Hong Kong (\$209.9 million and New Zealand (\$194.2 million).<sup>4</sup>

As discussed in the Introduction, our primary interest is in the participation of Australian banks in these loans, and how this participation differs across borrowing firm countries. For each loan in our sample, an Australian bank is recorded as a participant if Dealscan lists it as having some positive share of the loan. In practice, virtually all Australian bank participation in syndicated loans appearing in our sample is undertaken by four multinational institutions – Australia and New Zealand Banking Group, Westpac Banking Corporation, Commonwealth Bank of Australia,

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<sup>3</sup>Syndicate structure and the identity of loan participants are measured at the deal level; in loans where more than one tranche exists we identify specific loan characteristics using the highest-value tranche – see Ivashina (2008),

<sup>4</sup>All loan values are expressed in United States dollars. For loans denominated in an alternative currency, their dollar value is calculated using the spot exchange rate prevailing at the time of loan activation.

Table 1: Summary of Syndicated Loans by Country of Borrower: 1999–2006

This table summarizes the geographical spread of loan syndicate borrowing by firms from 12 Asia-Pacific countries between January 1999 and September 2006. For loans denominated in an alternative currency, their value in United States dollars is calculated using the spot exchange rate prevailing at the time of loan activation.

| Borrower Country | Number of loans | Value of loans (\$billion) |
|------------------|-----------------|----------------------------|
| Australia        | 437             | 95.09                      |
| Hong Kong        | 364             | 76.42                      |
| India            | 86              | 10.30                      |
| Indonesia        | 30              | 3.39                       |
| Japan            | 2198            | 213.66                     |
| South Korea      | 401             | 43.14                      |
| Malaysia         | 110             | 19.59                      |
| New Zealand      | 107             | 20.78                      |
| Philippines      | 71              | 7.67                       |
| Singapore        | 146             | 20.35                      |
| Taiwan           | 662             | 55.12                      |
| Thailand         | 48              | 5.25                       |

and National Australia Bank.<sup>5</sup> These banks are among the largest in Asia with annual revenues exceeding \$20 billion each. Based on total capital in fiscal 2006, their respective rankings are National Australia Bank (4th), Australia and New Zealand Banking Group (6th), Commonwealth Bank of Australia (7th) and Westpac (9th).

Table 2 provides some preliminary evidence on the geographical preferences of Australian banks. These banks participate in a total of 657 loans, but the level of involvement varies greatly by country. In particular, Australian banks clearly have a strong preference for Australian borrowers. For example, they participate in 95% of loans to Australian firms versus only 3.4% of loans to Asian borrowers. Moreover, they participate in greater numbers (an average of 2.06 for every Australian-destination loan against 0.084 for Asian loans) and hold a greater share (an average of 49% by value for Australian borrowers versus 8.8% for Asian). However, Table 2 also reveals that the strong preference of Australian banks for local assets is not confined exclusively to Australian borrowers, as they also participate in 96% of loans to firms from Australia’s closest neighbour – New Zealand – holding 59% of such loans by value.

If borrowers tend to seek out lead banks from the same country (see Houston et al., 2007), then the apparent bias displayed in Table 2 may simply indicate that Australian banks are more likely to be asked to act as lead arranger for loans to Australian borrowers. Table 3 therefore categorizes participation as lead or non-lead and recalculates the relevant Table 2 statistics. This shows a similar pattern:

<sup>5</sup>For the purpose of defining participation, we include any foreign subsidiaries of these banks. Dealscan lists the subsidiaries of each parent firm.

Table 2: Participation by Australian banks in Syndicated Loans

This table reports some summary features of Australian bank participation in syndicated loans to borrowing firms from 12 countries. In the first numerical column, each row gives the number of loans (by country) in which Australian banks participate. Proportion of loans expresses this number as a proportion of the total number of country-loans made. Total contribution is the total investment (\$mill) in these loans. Contribution per loan equals Total contribution divided by Number of loans. Loan share equals Total contribution divided by the total value of country-loans. Banks per loan is the average number of participating Australian banks in each loan.

| Borrower Country | Number of loans | Proportion of loans | Total contribution (\$mill) | Contribution per loan (\$mill) | Loan share | Banks per loan |
|------------------|-----------------|---------------------|-----------------------------|--------------------------------|------------|----------------|
| Australia        | 416             | 0.95                | 45024.69                    | 108.23                         | 0.49       | 2.06           |
| NZ               | 103             | 0.96                | 11944.52                    | 115.97                         | 0.59       | 2.16           |
| Hong Kong        | 44              | 0.12                | 1129.23                     | 25.66                          | 0.05       | 0.13           |
| India            | 13              | 0.15                | 172.82                      | 13.29                          | 0.11       | 0.14           |
| Indonesia        | 2               | 0.07                | 22.65                       | 11.33                          | 0.17       | 0.07           |
| Japan            | 14              | 0.01                | 1093.05                     | 78.07                          | 0.16       | 0.01           |
| South Korea      | 19              | 0.05                | 433.86                      | 22.83                          | 0.11       | 0.05           |
| Malaysia         | 15              | 0.14                | 401.47                      | 26.76                          | 0.08       | 0.15           |
| Philippines      | 9               | 0.13                | 124.27                      | 13.81                          | 0.05       | 0.14           |
| Singapore        | 17              | 0.12                | 830.55                      | 48.86                          | 0.17       | 0.14           |
| Taiwan           | 5               | 0.01                | 154.82                      | 30.96                          | 0.17       | 0.01           |
| Thailand         | 0               | 0.00                | 0.00                        | 0.00                           | 0.00       | 0.00           |
| Asia Region      | 13.60           | 0.034               | 435.13                      | 31.99                          | 0.088      | 0.084          |

although Australian banks do contribute greater amounts to Australian and New Zealand borrowers when acting as lead arranger, even their contributions as non-lead participants are still many times greater than their corresponding contributions to Asian borrowers.<sup>6</sup>

Overall, these statistics indicate considerable market segmentation. For one class of borrowers – firms from Australia and New Zealand – Australian banks as a group are active loan syndicate participants, providing an average contribution of over \$110 million to 95% of such loans. For another class of borrowers – firms from the wider Asian region – participation is much thinner: an average contribution of \$32 million to less than 14% of loans. The obvious question of interest is why such segmentation should occur. After all, although the usual risk-aversion reasons for asset diversification may be less applicable to banks (see Carey and Nini, 2007), it seems unlikely that even a strict risk-neutral perspective could justify the local bias

<sup>6</sup>If the apparent bias of Australian banks with respect to Asian borrowers were primarily due to a lack of opportunity, then we would expect them to make up this shortfall in loans where they act as lead arranger, and thus hold a greater proportion of loans where the borrower is Asian. However, in untabulated regressions that control for loan, borrower and country characteristics, we find that the loan percentage retained by Australian lead banks is actually significantly lower if the borrower is Asian.

Table 3: Loan Participation by Australian banks: Lead Arranger vs Participant

This table reports various features of Australian bank participation in syndicated loans, separated by whether they provide the lead arranger or whether they are non-lead participants. For example, the average contribution by Australian banks to loans made to Australian borrowers is \$119.08 mill when one of them is a lead arranger, and \$65.35 mill when they are non-lead participants. For each participation category, average loan size is total value of loans divided by the number participated in. Other variables are defined in Table 2.

| Participation category | Contribution per loan (\$mill) | Loan share | Average loan size (\$mill) | Banks per loan |
|------------------------|--------------------------------|------------|----------------------------|----------------|
| Australia-Lead         | 119.08                         | 0.51       | 233.66                     | 2.11           |
| Australia-Participant  | 65.35                          | 0.37       | 174.90                     | 2.35           |
| NZ-Lead                | 129.57                         | 0.60       | 214.98                     | 2.27           |
| NZ-Participant         | 99.76                          | 0.57       | 173.65                     | 2.21           |
| Asia-Lead              | 32.25                          | 0.11       | 282.47                     | 1.12           |
| Asia-Participant       | 31.81                          | 0.08       | 419.54                     | 1.15           |

documented in Tables 2 and 3.

One possible clue is provided by the apparent enthusiasm Australian banks display for borrowers from New Zealand. Of all the countries in our sample, New Zealand is not only geographically the closest to Australia, but it also shares a more-or-less identical language and culture, and employs the same English-origin legal system. In addition, the two countries' banking systems overlap to a large extent – the ‘big-four’ Australian banks listed above control over 80% of the banking system assets in New Zealand as well as Australia. Similarities of this kind could result in information problems – from the perspective of Australian banks – being of only very minor relevance with respect to New Zealand borrowers, and hence result in their being treated in the same way as Australian firms. By contrast, the much less familiar environments of the 10 Asian countries would dissuade Australian banks from participating in loans to their firms. This suggests that controlling for variation in these ‘familiarity characteristics’ may at least partly explain the apparent bias against Asian borrowers. We take up this issue in the next section.

### 3 Regression Results

To investigate whether or not country familiarity characteristics can explain the preference of Australian banks for local borrowers, we estimate models of the following general form:

$$Y_i = \alpha + \beta X_i + \sum_s \gamma_k Z_{ik} + \sum_s \lambda_s W_{is} + \varepsilon_i \tag{1}$$



where:

$Y_i = 1$  if at least one Australian bank participates in loan  $i$ , 0 otherwise; or

$Y_i =$  the number of Australian banks participating in loan  $i$ ; or

$Y_i =$  the percentage share held by Australian banks in loan  $i$

and:

$X_i = 1$  if loan  $i$  is made to a firm from one of the 10 Asian countries, 0 otherwise

$Z_{ik} =$  value of familiarity characteristic  $k$  for loan  $i$

$W_{is} =$  value of control variable  $s$  for loan  $i$ .

In equation (2),  $\beta$  represents the additional participation by Australian banks in loans to Asian borrowers over and above their participation in loans to Australian borrowers. In each model, we include four familiarity characteristic variables: geographical distance, legal origin, culture, and Australian bank presence. All are expressed as differences from Australia. The distance between Sydney and the capital city of the borrowing firm's country is calculated using equation (1) in Coval and Moskowitz (1999). Utilising the information in La Porta et al. (1997), the legal system variable equals 1 if the borrower is from a country with a system whose origin differs from that of Australia (i.e., is non-English) and 0 otherwise. Culture is based on the Hofstede Cultural Dimensions data (available at [www.geert-hofstede.com](http://www.geert-hofstede.com)) covering societal power structure, individualism, values and representative personality. For each country, we aggregate these individual dimension scores and express the result in terms of distance from Australia (see Kogut and Singh, 1988):

$$\text{Culture difference}_j = \sum_{i=1}^4 \frac{[(D_{ij} - D_{iA})^2 / V_i]}{4}$$

where  $D_{ij}$  is country  $j$ 's score for dimension  $i$ ,  $D_{iA}$  is the Australian score, and  $V_i$  is the sample variance. Finally, Australian bank presence in a country is measured by the number of major Australian banks that carry a full banking license in that country.<sup>7</sup> For use in equation (2), we subtract this number from 4 (the value for Australian borrowers). Because the difference between the extensive branch network operated in New Zealand and the much thinner presence in Asian countries (which typically have only one or two branch offices) is likely to be understated by this variable, we also include its square to allow for any resulting non-linearity effect.

In case the lending policies of Australian banks differ from those in other countries, we also include controls for loan and borrower characteristics. For example, it may be that Australian banks are less concerned about borrowers holding credit ratings than are non-Australian banks. Ex-post, where all loans must be held, this would show up as Australian banks being more likely to participate in loans to unrated borrowers. If, in our sample, the average number of unrated borrowers then differs across countries, this would bias our other coefficient estimates. To alleviate this problem, we use six variables to control for five characteristics: loan size (\$ million at the loan

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<sup>7</sup>A less formal presence (e.g., a representative office) is scored as 0.5.

Table 4: Summary Statistics for Explanatory Variables

This table provides summary statistics for the independent variables used in this paper. Working capital purpose = 1 if a loan is intended to raise working capital and 0 otherwise. Acquisition purpose = 1 if a loan is used to fund an acquisition and 0 otherwise. Term loan = 1 if the loan is of that kind and 0 otherwise. Opaque borrower = 1 if the borrowing firm is listed as either private or unrated in the Dealscan database and 0 otherwise. English legal origin = 1 if a country's legal system is based on English legal principles and 0 otherwise. Australian bank presence is equal to the number of Australian banks (0–4) who offer full banking services in each country. Culture difference is an index describing the extent to which a country's culture differs from that of Australia. The first three columns provide sample means or proportions (standard deviations for continuous variables are in parentheses) for the full sample categorized by borrower location. The final column gives these statistics for the sub-sample of loans in which at least one Australian bank participates.

| Variable                             | <i>Full sample<br/>of loans<br/>(n=4661)</i> |                    |                    | <i>Loans in which<br/>Australian banks<br/>participate<br/>(n=657)</i> |
|--------------------------------------|--|--------------------|--------------------|--|
|                                      | Borrower Region                              |                    |                    |  |
|                                      | Australia                                    | New Zealand        | Asia               |  |
| <i>Loan-Borrower Characteristics</i> |  |                    |                    |  |
| Maturity (months)                    | 45.86<br>(36.19)                             | 41.78<br>(56.90)   | 47.50<br>(36.50)   | 46.61<br>(40.37)   |
| Size (\$ mill)                       | 217.60<br>(312.66)                           | 194.21<br>(298.24) | 110.49<br>(340.02) | 246.63<br>(463.68)   |
| Working capital purpose              | 0.15   | 0.28               | 0.55               | 0.20   |
| Acquisition purpose                  | 0.13   | 0.09               | 0.01               | 0.11   |
| Term loan                            | 0.46   | 0.36               | 0.57               | 0.46   |
| Opaque borrower                      | 0.99   | 0.98               | 0.97               | 0.99   |
| <i>Country Characteristics</i>       |  |                    |                    |  |
| English Legal Origin                 | 1  | 1                  | 0.18               | 0.93   |
| Australian bank presence             | 4  | 4                  | 2.04               | 3.58   |
| Culture difference                   | 0  | 0.15               | 2.90               | 0.64   |
| Distance from Australia (km/1000)    | 0  | 2.17               | 7.67               | 1.92   |

activation date), loan maturity (months from the time of activation), loan purpose, loan type, and borrower type.<sup>8</sup> Loan purpose is captured by two dummy variables – one equal to 1 if the loan is intended to provide working capital and 0 otherwise, the other equal to 1 if the loan is to fund an acquisition and 0 otherwise. Loan type distinguishes between term loans and lines of credit, being set equal to 1 if and only if the borrower takes out a term loan. Finally, a borrower is defined as opaque if it is either (i) private or (ii) public but unrated; loans involving such borrowers are set equal to 1 while all others are set to 0.

Table 4 contains summary statistics for these variables. On average, Asian bor-

<sup>8</sup>See Houston et al. (2007) and Sufi (2007) for detailed discussions of the economic rationales for these variables.

rowers take out smaller loans at a longer maturity than Australian and New Zealand borrowers, are more likely to borrow for working capital purposes but less likely for acquisition purposes, and tend to prefer term loans. Less than 20% of loans made to Asian borrowers are in countries with an English-origin legal system; the average loan to Asian borrowers goes to a country with half the Australian bank presence of Australia (or New Zealand) and whose culture index is roughly 19 times distant from Australia than is New Zealand's.

The final column of Table 4 shows the value of these of these statistics for the subset of loans in which Australian banks participate. On average, they appear to prefer relatively large loans made to borrowers from countries that are geographically close to Australia, have a significant Australian bank presence, and follow an English-origin legal system. This raises the possibility that the bias against Asian borrowers observed in Tables 2 and 3 may simply be reflecting these more fundamental factors.

Equation (2) is estimated as a Probit model when the dependent variable is the participation dummy; Normal Count models are used to estimate the number of participating banks variable; and the loan share models are estimated with Censored Logistic regressions.<sup>9</sup> In all models, we include year dummies for 2000–2006 and, since some borrowing firms appear more than once in our sample, report Huber-White robust standard errors clustered at the firm level. For each dependent variable, we report two specifications: one that includes only the loan and borrower characteristics and one that adds the country-familiarity variables. This allows us to isolate the effect of the latter.

The results appear in Table 5, and two features stand out. First, the Asian borrower dummy is strongly negative in the specifications that exclude the country-familiarity variables, but becomes economically and statistically less important when these are added, suggesting that they explain at least some of the Australian bank preference for local borrowers. Nevertheless, column (2) indicates that even after controlling for loan, borrower and country-familiarity characteristics, there is a much greater likelihood of Australian participation in loans to Australian and New Zealand borrowers than there is to Asian borrowers. For example, consider the case of an unrated borrower seeking a line of credit of average size and maturity in order to fund an acquisition. If this borrower is from Australia or New Zealand, the estimated probability of Australian participation is almost 97%; but for an otherwise identical Asian borrower the probability is only 26%. By contrast, columns (4) and (6) indicate that the *quantity* of Australian participation – as measured by the number of participating Australian banks or their total loan share – is statistically no smaller for Asian borrowers once country-familiarity characteristics are accounted for: although the loan dummy coefficient remains negative, it is insignificant at conventional levels. The economic significance is also much weaker: consider again the unrated borrower

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<sup>9</sup>We also estimate the latter two groups of models using Poisson Count and Tobit methods respectively. This yields similar results, but the methods reported in Table 5 fit the data slightly better.

Table 5: Australian Bank Participation in Syndicated Loans: Regression Results:

This table estimates three measures of the propensity of four multinational Australian banks to participate in 4661 syndicated loans made to borrowers from 12 countries between 1999 and 2006. Australian bank participation equals 1 if at least one Australian bank participates in a loan and 0 otherwise. Number of Australian banks is the number (between 0 and 4) that participate in the loan. Loan share of Australian banks is the percentage of total loan funding provided by Australian banks. Asian borrower equals 1 if the borrowing firm comes from any of the Asian countries listed in Table 2 and 0 otherwise. All 'difference' variables correspond to those introduced in Table 4, but redefined so that Australian borrowers equal 0. All other variables are defined in Table 4. Columns (1) and (2) are Probit models and report a Pseudo-R<sup>2</sup>; columns (3)–(4) are Normal Count models and report an Adjusted-R<sup>2</sup>; columns (5)–(6) contain Censored Logistic estimates and also report an Adjusted-R<sup>2</sup>. Huber-White robust standard errors (clustered at the borrowing firm) are in parentheses. \*, \*\* and \*\*\* denote statistical significance at the 10%, 5% and 1% levels respectively. All specifications include year dummies.

| Explanatory Variable                    | <i>Dependent Variable</i>     |                    |                            |                    |                                |                     |
|---|-------------------------------|--------------------|----------------------------|--------------------|--------------------------------|---------------------|
|   | Australian bank participation |                    | Number of Australian banks |                    | Loan share of Australian banks |                     |
|   | (1)                           | (2)                | (3)                        | (4)                | (5)                            | (6)                 |
| Constant                                | -6.11***<br>(0.66)            | -5.05***<br>(0.69) | -2.14***<br>(0.42)         | -2.22***<br>(0.43) | -48.27**<br>(21.88)            | -0.82<br>(22.62)    |
| Asian borrower                          | -3.47**<br>(0.12)             | -2.48**<br>(1.00)  | -3.68***<br>(0.11)         | -0.14<br>(1.51)    | -112.89***<br>(3.08)           | -51.38<br>(31.95)   |
| log Size                                | 0.37***<br>(0.03)             | 0.34***<br>(0.03)  | 0.14***<br>(0.02)          | 0.14***<br>(0.02)  | 4.45***<br>(1.01)              | 2.08*<br>(1.11)     |
| log Maturity                            | 0.11*<br>(0.06)               | 0.02<br>(0.06)     | 0.04<br>(0.03)             | 0.04<br>(0.03)     | 2.87*<br>(1.48)                | 1.56<br>(1.45)      |
| Working capital purpose                 | -0.14<br>(0.09)               | 0.01<br>(0.09)     | -0.05<br>(0.05)            | -0.05<br>(0.05)    | -3.52<br>(2.73)                | 1.74<br>(2.74)      |
| Acquisition purpose                     | 0.44*<br>(0.26)               | 0.42<br>(0.26)     | -0.09<br>(0.08)            | -0.09<br>(0.08)    | 1.05<br>(4.61)                 | 1.33<br>(4.28)      |
| Term loan                               | 0.01<br>(0.09)                | -0.10<br>(0.09)    | -0.06<br>(0.05)            | -0.05<br>(0.05)    | -2.11<br>(2.43)                | -4.19*<br>(2.32)    |
| Opaque borrower                         | 0.51**<br>(0.23)              | 0.32<br>(0.27)     | 0.06<br>(0.18)             | 0.06<br>(0.18)     | 12.79<br>(8.98)                | 10.71<br>(9.63)     |
| Legal System difference                 |                               | -0.74***<br>(0.20) |                            | -1.20***<br>(0.23) |                                | -24.32***<br>(6.90) |
| Culture difference                      |                               | -0.04<br>(0.11)    |                            | -0.12<br>(0.21)    |                                | -1.42<br>(3.45)     |
| Bank presence difference                |                               | -0.83<br>(1.17)    |                            | -3.22**<br>(1.21)  |                                | -77.85**<br>(35.02) |
| (Bank presence difference) <sup>2</sup> |                               | 0.22<br>(0.27)     |                            | 0.74**<br>(0.38)   |                                | 18.67**<br>(8.12)   |
| Distance from Australia                 |                               | 0.02<br>(0.08)     |                            | -0.05*<br>(0.03)   |                                | -2.93**<br>(1.43)   |
| R <sup>2</sup>                          | 0.69                          | 0.71               | 0.72                       | 0.73               | 0.73                           | 0.75                |

discussed above. When the country-familiarity variables are excluded, the predicted number of Australian banks participating in such a loan is 1.45 if the borrower is from Australia or New Zealand, but only 0.4 for otherwise-identical Asian borrowers; when those variables are included, the corresponding numbers are 1.45 and 1.26.

Second, the legal and banking environment appears to be particularly important in explaining the Australian bank preference for local borrowers. A different legal system discourages Australian bank loan participation, as does a weaker Australian banking presence: the former is significant at the 1% level in all specifications while the latter is significant at the 5% level for the number and loan share dependent variables. Geographical and cultural distance from Australia also reduce Australian bank participation, albeit with varying degrees of statistical significance.

Of the control variables, only loan size has a consistently significant effect: Australian banks apparently participate more often, and more extensively, in large loans. Unsurprisingly, this effect is weakest in column (6) where the dependent variable is loan share.

To assess the robustness of our results, we experiment with a number of different model specifications. In particular, we include additional legal (rule of law, judicial efficiency, legal formalism) and investor protection (corruption, creditor rights) variables, and apply a number of different estimation methods (including OLS). Although these modifications have varying effects on individual coefficient estimates, the overall picture is essentially the same as that outlined above: country-familiarity variables reduce, and sometimes eliminate, the bias against non-local borrowers.

## 4 Concluding Remarks

Using a sample of 4661 syndicated loans made to borrowers from 12 countries in the Asia-Pacific region, we find that Australian banks exhibit a significant home bias: they participate more often and more extensively in loans to Australian borrowers than they do in loans to Asian borrowers. Motivated by the observations that (i) participation in loans to New Zealand borrowers is identical to those for Australian borrowers and (ii) New Zealand is most similar to, and hence most ‘familiar’, to Australia along a number of dimensions, we investigate the role of country-familiarity characteristics in determining the domestic preference and find that at least some, and sometimes all, of the bias can be attributed to these factors, in particular those relating to legal and banking system differences. As these characteristics are likely to proxy for information availability, our results provide further support for the view that home bias phenomena are primarily due to information problems: Australian banks perceive themselves to be at an information disadvantage in assessing borrowers located in less familiar countries and thus tend to shy away from participation in such loans.

Of course, country-familiarity characteristics truly ‘explain’ the home bias only

to the extent that loans to more familiar borrowers actually provide better average returns to banks. Such a phenomenon has been documented by Coval and Moskowitz (2001), Ivkovic and Weisbenner (2005) and Malloy (2005) for equity investors, so further research on syndicated loan participation could undertake similar investigations for banks, possibly along the lines of Mian (2006).

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