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INSIDE THIS ISSUE

Taking a Big Bath upon a Sovereign Downgrade

Yupeng Lin (National University of Singapore), Bohui Zhang (CUHK Shenzhen) and Zilong Zhang (City University of Hong Kong)

This paper examines the accounting choice of downgraded companies when their sovereign debt gets downgraded. Following a sovereign rating downgrade, a firm with a rating equal to or higher than the sovereign rating is likely to be downgraded because firms' credit ratings are bound by the sovereign rating of its country of domicile. This rule used by the rating agencies is called the sovereign ceiling rule of credit ratings. Taking advantage of this rule, the authors examine the accounting choices of bound firms that are subject to a higher likelihood of being downgraded after a sovereign downgrade.

The authors say that there are several merits of using this setting to examine the "big bath accounting". First, bound firms' credit ratings are forced to be downgraded due to an arbitrary rule imposed by rating agencies upon a sovereign downgrade, not because these firms are fundamentally worse than other firms prior to the sovereign downgrade. In this respect, the negative shock on bound firms' credit ratings is exogenous. Second, the ceiling rule is a mechanical and external shock rather than an internal factor, to which the manager can attribute the poor earnings.

Further, since the bound firms are not fundamentally problematic, the earnings are likely to experience a reversal after a big bath. Managers can not only wrap up with a personal assurance that the company is well poised to capture opportunities when the market conditions turn more favourable, but also seize personal benefits from the performance improvement. Therefore, a sovereign downgrade and the ceiling rule provide managers with an opportunity to take an earnings bath.

The authors say that they conducted their tests by using a worldwide sample over the 1999-2013 period. Using a difference-indifferences approach, they show that the accounting choices of bound firms' managers primarily reflect the incentive of "taking a big bath" rather than an attempt to portray these firms as less troubled following a sovereign downgrade. That is, firms, which are likely to be downgraded due to the sovereign ceiling rule, report lower abnormal accruals following the downgraded events. The change is both statistically significant and economically relevant. For example, the estimated coefficient suggests that the return on assets for these firms have been manipulated downwards by 1.6% to 1.7%.

The study shows that bound firms reduce discretionary accruals after sovereign downgrades, are more likely to experience an earnings reversal subsequent to the accrual reduction, and will manage earnings up upon a subsequent sovereign rating upgrade. The authors also find that the reduction of discretionary accruals is more significant in countries with higher disclosure requirement and stronger shareholder protection, consistent with the notion that firms facing restraints of opportunistic disclosure behaviours are more likely to take advantage of peculiar negative shocks to conduct abnormal write-offs.

Overall, the authors provide evidence that managers may strategically employ big bath accounting in response to negative economic shocks.

Gravity, Counterparties and Foreign Investment

Cristian Badarinza (National University of Singapore), Tarun Ramadorai (Imperial College London) and Chihiro Shimizu (University of Tokyo)

Gravity models have been an empirical workhorse for modelling international trade and investment flows. Yet the underlying economic reasons for their success have proven elusive.

The authors use the global commercial real estate market, an important venue for foreign direct investment, as a laboratory to better understand the drivers of gravity. Their data comprehensively track transactions in over 70 countries over the past decade. A unique feature of these data is that they identify *both* counterparties in all transactions, as well as the nation in which these counterparties are incorporated. This opens the door to more granular investigation of the role of counterparty preferences and networks on cross-border flows.

The authors' findings suggest that buyers of commercial real estate have an unusually strong tendency to transact with sellers from their own country of origin – a phenomenon which they label as 'nationality bias'. This tendency shows up for virtually all nationalities, is present when transactions occur at home or abroad, and is economically large and statistically robust. Nationality bias is particularly strong when buyers venture overseas, and it is restricted to same-nationality matches, with no greater tendency for matching between counterparties hailing from countries with cultural or linguistic links, or those that are physically proximate. However, same-country matching rates rise substantially in locations in which legal protections are weak, supporting the interpretation that contracting frictions are the principal drivers of this tendency.

To rationalize the new evidence, the authors set up an equilibrium model with heterogeneous buyers and sellers, random matching, and endogenous determination of volumes and prices in a rational expectations equilibrium. The main assumption in the model is that transactions with different-nationality counterparties are subject to a friction which affects their expected value. The authors interpret this friction as a generic representation of difficulties in contracting, or a lack of trust that affects transactions with different nationality counterparties. After solving the model in closed form and structurally estimating it, the authors find that the underlying market friction is equivalent to an expected value reduction of 11.6%, meaning that buyers in the model are willing to pay this amount to avoid transacting with different-nationality counterparties. In the counterfactual frictionless economy, transaction dollar volumes increase by 14.3% as a result of new transactions between different nationalities. The combination of the historical establishment of beachheads and the contracting friction delivers a new explanation for the ongoing empirical success of gravity equations, a longstanding puzzle in the international trade and investment literature.

Financial Globalization vs. Income Inequality: The Surprising Role of Foreign Portfolio Flows in Taming the Top 1%

Si Cheng (Chinese University of Hong Kong), Massimo Massa (INSEAD & ABFER) and Hong Zhang (Tsinghua University & ABFER)

Financial globalisation related to foreign direct investment is widely seen as raising income inequality, but this paper documents a surprising finding: large swings of capital flows delegated through the global mutual fund industry could in fact reduce the income of the top 1 per cent.

This finding emerged from the authors' attempt to fill perceived gaps in existing literature on how financial globalisation influences income inequality: the question of whether foreign indirect investment's impact might differ from foreign direct investment's, and potential spurious correlation of financial globalisation measured at country-level with other country characteristics affecting income distribution.

By linking large waves of delegated portfolio flows – in particular those triggered by fire sales and fire purchases – to measures of inequality from the World Wealth and Income Database, the paper finds the two to be negatively related. Differentiating flow shocks by countries of origin shows that the mitigating effect comes mainly from capital flows of foreign funds. Since fire sales and fire purchases of a foreign fund tend to be exogenous to the economic conditions of the investing country, such a finding suggests that financial globalisation in terms of delegated portfolio flows might reduce inequality.

To investigate this finding, the authors constructed a dataset of worldwide ownership of both public and private firms for the 2001-2013 period, merging ownership information with detailed accounting data so as to be able to measure inequality as the fraction of sales revenues accrued to rich families in each country or industry. This measure of income inequality understands macro inequality as having micro foundations rooted at the firm level – wealth concentrated in a small group of rich persons is driven directly and indirectly by the sales revenues of companies they own, i.e., cash flow inequality.

With this novel dataset and measure of income inequality, the paper's empirical analysis first confirms that delegated portfolio shocks in general and foreign delegated portfolio shocks in particular are negatively related to cash flow rights inequality. In order to pin down the economic mechanism, the paper shows that large swings of portfolio flows and especially foreign portfolio flows significantly reduce the allocation efficiency, suggesting that the industries sold by ultimate owners subsequently outperform their holding ones. In addition, lower allocation efficiency (induced by large inflow shocks) lead to lower cash flow rights inequality.

The authors found that a one-standard-deviation increase in foreign flow shocks transforms into a 11 per cent-standard-deviation reduction in inequality through this "asset misallocation" channel. The paper further shows that only strategic trades involving transfer of controlling ownership in a particular industry affect inequality but not marginal trades. In addition, ultimate owners tend to sell their core assets to foreign institutions, suggesting that diversification plays an important role in rich families' strategic trades.

The paper then goes on to investigate alternative mechanisms such as corporate governance, taxation, labour market conditions, technology shocks, education, financial development and liquidity, but finds that these do not generate or explain the observed phenomenon.

These results have important normative implications, the authors say. They suggest that, unlike in the case of the labour market or foreign direct investment, a more price-efficient global financial market in terms of delegated portfolio investment could mitigate income inequality.

On the Rise of FinTechs - Credit Scoring using Digital Footprints

Si Cheng (Chinese University of Hong Kong), Massimo Massa (INSEAD & ABFER) and Hong Zhang (Tsinghua University & ABFER)

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Measuring Mispricing in the Global Market: A New Perspective

Massimo Massa (INSEAD & ABFER), Yang Gloria Yu (Singapore Management University) and Hong Zhang (Tsinghua & ABFER)

The motivation for this paper is to study the fragmentation in the global markets even though it is less so in recent years. The new era of globalisation urges researchers to properly measure global mispricing in order to assess the degree of efficiency in the global market. The determination of asset prices and the identification of related economic grounds are considerably more intricate in the global market due to potential market segmentations and frictions.

In this paper, the authors propose and test a novel intuition that cross-country mispricing can be identified when assets are benchmarked against dual listed firms. More specifically, since a parent stock and its American Depository Receipt (ADR) are likely to be subject to a similar degree of mispricing to avoid outright pair-wise arbitrages, they expect the local industry to be underpriced compared to its U.S. counterparty when it is observed that a parent stock has a higher overpricing-rank within its local industry than the overpricing-rank of its ADR within the corresponding industry in the U.S.

The authors say that empirically they find that under pricing measured in this way has a significant predicting power over industry returns in the global market. A quarterly rebalanced long-short portfolio based on the measure can generate risk-adjusted returns as high as 7.8% per year. Moreover, while large domestic mutual fund flows give rise to mispricing, international mutual funds seem to chase such opportunities.

The paper fills the gap in the literature on the implication of industry level segmentation on industry portfolio return predictability and the corresponding behaviour of institutional investors. Its findings add to the empirical evidence on market segmentation at the industry level. The authors also show that mutual fund investors do react to industry misvaluation. However, they are not the marginal investors who eliminate the international arbitrage opportunities.

Importantly, this paper proposes an ADR-based industry level mispricing measure which positively predicts future returns. The long-short trading strategy built around UnderPricing index generates significant alphas accounting for standard pricing factors. Mutual funds exploit this industry level return predictability by moving their capital to countries where the focal industry experiences a higher level of undervaluation in the period before, particularly when the mutual funds are headquartered abroad. Extreme domestic fund flows, on the contrary, explains the origination of the contemporaneous mispricing.

Also, the study presents suggestive evidence that the returns predictability of its UnderPricing index is stronger in emerging markets. Overall, the paper's results suggest that the global market is segmented at the industry level, and that capital flows play a particularly important role in this case in mispricing and its undoing.

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The purposes of the Bureau include:

- to promote Asia-Pacific oriented financial and economic research at local, regional and international levels;
- to connect globally prominent academic researchers, practitioners and public policy decision-makers on Asia-Pacific related financial and economic issues;
- to enhance the research capabilities and development of strong clusters of finance and economic research groups in academic institutions and other institutions in Singapore and Asia-Pacific.

This Digest summarizes selected papers presented in the ABFER 7th Annual Conference which was held in May 2019 at Shangri-La's Rasa Sentosa Resort, Singapore. Past issues of the Digests are available here. More information on the conference can be found here.

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