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INSIDE THIS ISSUE

The Benefits of Labor Mobility in a Currency Union

Christopher L. House (University of Michigan and NBER), Christian Proebsting (Ecole Polytechnique Federale de Lausanne) and Linda L. Tesar (University of Michigan and NBER)

This paper starts from the observation that euro area countries have experienced vastly different paths of unemployment over the last ten years, threatening the viability of the euro. The authors pursue one possible explanation for why unemployment rates across countries have diverged: the lack of cross-country labor mobility. This line of reasoning follows a classic paper by Robert Mundell (1961) that argued that labor mobility could substitute for independent monetary policy.

In the first part, the authors empirically examine whether labor mobility is low in Europe, using the U.S. as a benchmark. The data paints a clear picture: Migration flows react to cyclical variations in unemployment rates both in Europe and across U.S. states, but this reaction is faster and about three times larger in the U.S. According to the authors, in the U.S. these migration flows from high- to low-unemployment regions seem strong enough to help equalizing unemployment rates across regions.

Motivated by these facts the authors set up a quantitative model of 29 European economies to evaluate Mundell's conjecture that labor mobility is a precondition for an optimal currency area. A major contribution of their work is to extend this multi-country model to allow for labor migration and to add search and matching frictions in the labor market that give rise to realistic unemployment rate differentials across countries. The model is calibrated to match the main features of the European countries including country size, trade flows and whether they share the euro.

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To evaluate Mundell's claim, the authors consider two counterfactual scenarios: First, they ask how Europe's economies would have fared during the most recent economic crises if they had enjoyed U.S. levels of labor mobility. Second, they ask what would have happened if countries in Europe had flexible currencies and could conduct independent monetary policies.

The model reveals that Mundell's conjecture was surprisingly accurate. The outcome in Europe with fixed exchange rates but labor mobility at U.S. levels would be very similar to the outcome under flexible exchange rates. In the data, unemployment rates in the GIIPS countries rose by 7.6 percent relative to the rest of Europe from 2006 to 2014. Either counterfactual policy would have dampened this increase to 6.3 percent.

The mechanisms that achieve these similar unemployment rate responses are different though. In the first case, high unemployment rates induce a currency depreciation of 35 percent, raising demand for domestic products and hence GDP. In the second case of greater labor mobility, the outflow of workers directly reduces unemployment rates through tighter labor markets and results in a decline in GDP. For the GIIPS economies, the required outflow would have been about 5 percent of the population, instead of the 1.2 percent outflow observed in the data. The authors therefore conclude that both policies would have entailed substantial adjustment mechanisms.

Cultural Preferences in International Trade: Evidence from the Globalization of Korean Pop Culture

Pao-Li Chang (Singapore Management University) and Iona Hyojung Lee (Singapore Management University)

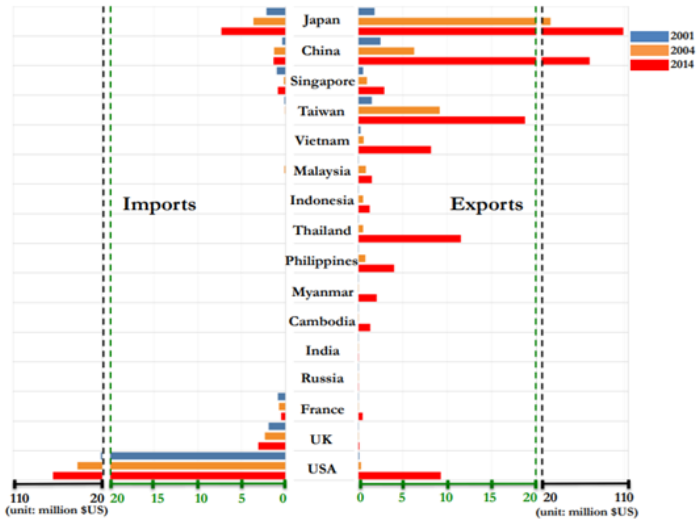
Over the past 15 years, Korean popular culture, especially soap operas and K-pop music, has become immensely popular across the globe. This phenomenon is called the "Korean Wave". This paper shows that more exposure to Korean pop culture changes foreign consumers' preferences and leads them to buy more Korean goods.

The authors compile data on South Korea's TV show exports to 136 countries for the period 2001– 2014. They also look at data on Korea's bilateral exports, number of foreign visitors to Korea and Korea's outward FDI flows.

The authors first analyse the impact of the Korean wave on two iconic industries in Korea, cosmetics and tourism. It is well-documented that women have stronger preferences for Korean pop culture. For example, the largest online Chinese video website, iQiyi, reports that more than 70% of most Korean TV drama viewers are female. In a consistent manner, the figures show that Korea's exports of cosmetic products grew substantially in destinations where Korean pop culture became very popular (e.g., China, Singapore) but stayed relatively flat in countries where Korean pop culture is not popular (e.g., UK, Germany). Similarly, the number of tourists to South Korea more than quadrupled during 2003–2016; significantly, the ratio of female-to-male visitors was higher from countries where the Korean TV shows are more popular.

The authors then analyse the overall Korean-wave impact for all industries. Three estimation strategies are used to ensure that the causality runs through the channel of consumer preferences: First, they exploit the heterogeneous effects across genders by testing whether the Korean wave has larger effects on women's than on men's clothing. Results show that doubling Korea's TV show exports increases the destination's Korean import shares in women's clothing by 21%, while the effects on men's clothing are not significant. Secondly, they test a natural hypothesis that such cultural influences have stronger effects on final consumer goods compared to intermediate or capital goods.

South Korea's TV Program Exports across Selected Destinations



- The TV show export data exhibit significant variations over time and across countries.
- Patterns are highly asymmetric between imports and exports, implying the fast increases in Korea's TV show exports are not driven by some improved bilateral trade relationships.

They find that doubling the Korean TV show exports increases exports of consumer goods by 17%, while the effect is not significant for capital or intermediate goods. Finally, they look at the diffusion of preferences and found that the effects are significant even for goods and services which are rarely advertised through the mass media in foreign countries, e.g., Korean clothing and FDI in retails, restaurants, hair salons, and medical clinics.

Increased Korean TV show exports during 2001–2014 increased Korea's exports of consumer goods by $18.81 billion. So, by merchandise trade alone, the Korean wave contributed about 3.1% to South Korea's GDP in 2002. This paper suggests a potentially important policy implication: promoting a country's culture can be an effective tool for export promotion, since it can dramatically reshape foreign consumer preferences for products and services.

This is the first paper in the trade literature demonstrating causality where cultural shocks to the demand side affect international trade. It is generally difficult to systematically identify the effect of cultural preferences because most cultural factors evolved over a long time. This paper overcomes this difficulty by using the phenomenon of the relatively fast global spread of Korean pop culture and demonstrates its impacts on trade and FDI.

Uneven Regulatory Playing Field and Bank Transparency Abroad

Tai-Yuan Chen, Yi-Chun Chen and Mingyi Hung (Hong Kong University of Science and Technology)

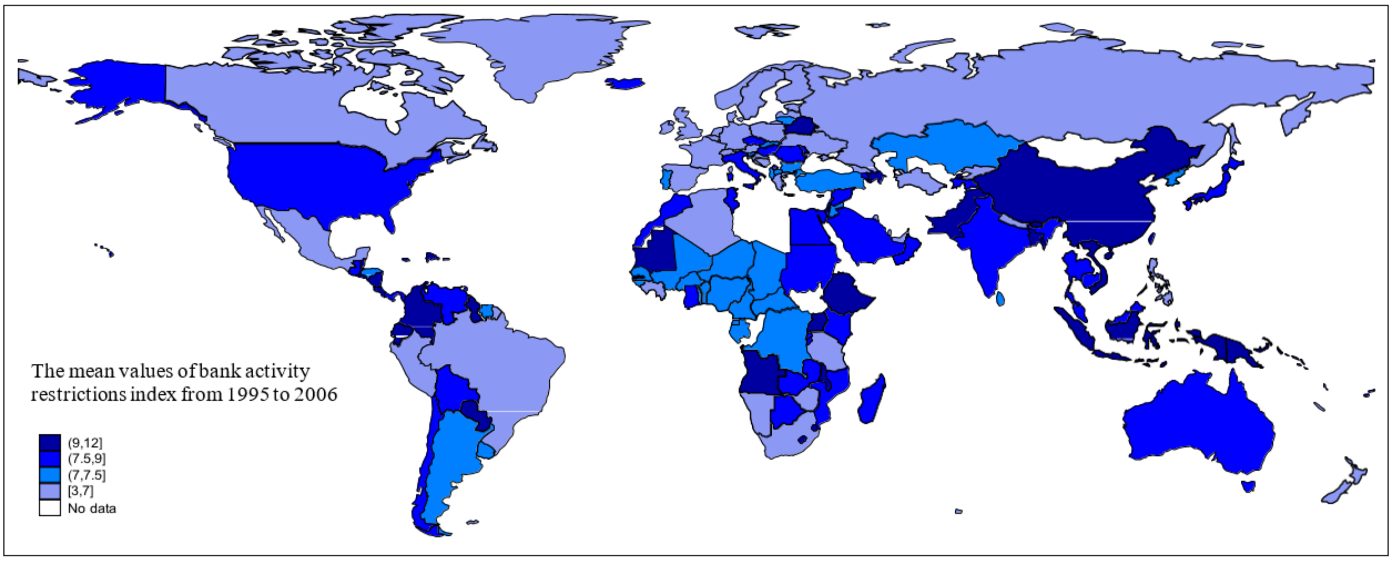


Figure 1: Bank Regulations Vary Around the World

Data source: Barth, Caprio, and Levine (2013), with higher values indicating tighter activity restrictions.

Cross-border banking claims have reached more than half of global GDP and the vast majority of these claims are held by systemically important financial institutions with operations worldwide. Despite that bank regulators have put forth great effort to intensify international collaboration, bank regulations still vary widely across countries (Figure 1). Focusing on the reporting transparency of banks' foreign subsidiaries, this study examines the implications of cross-country regulatory differences in banks' transparency and stability abroad.

The authors hypothesize that foreign subsidiaries' financial reporting transparency declines when their home countries have tighter activity restrictions than their host countries. The authors argue that opacity weakens market discipline on the risk-shifting behaviour of the parent banks.

Foreign subsidiaries are separately capitalized and subject to the host country's regulations. By exploiting the lax host-country rules through their foreign subsidiaries, parent banks can take on overly risky projects that maximise shareholder value at the expense of debt holders' interest.

Thus, parent banks have incentives to reduce the transparency of their foreign subsidiaries located in countries with lax regulations to inhibit outside monitoring and regulatory oversight over their risk-taking activities abroad.

The authors' second hypothesis is that foreign subsidiaries with greater transparency are less likely to suffer from financial instability. Transparency decreases banks' ability to conceal risk exposure and reduces investors' uncertainty about banks' intrinsic value, thereby reducing banks' vulnerability to downside risk. Additionally, as bank transparency facilitates market discipline, the improved market signal can prompt regulatory interventions to reduce financial instability.

Using a sample of 1,140 subsidiary-years from 250 majority-owned foreign subsidiaries located in 39 host countries, the study finds that regulatory differences are negatively associated with foreign subsidiaries' disclosures. In addition, using cross-border acquisitions, the study shows that target banks' transparency decreases after the acquisitions when the acquirer banks are from countries with more restrictive regulations than the targets.

The authors' additional analysis also suggests that risk-shifting incentives, rather than proprietary cost considerations, are the most likely mechanism through which regulatory differences affect foreign subsidiaries' transparency. Exploiting the 2007–2009 global financial crisis, the authors find that foreign subsidiaries with less disclosure are more likely to fail or experience large deposit withdrawals during the crisis.

Overall, this paper complements earlier studies by separately examining banks' foreign subsidiaries and focusing on the effect of regulatory inconsistency. The evidence suggests that regulatory inconsistency leads to degraded transparency abroad, which in turn exacerbates the financial instability in the local market. The authors' finding that the negative externalities primarily exist in countries with weak supervisory power highlights the importance of bank supervision when regulators consider using lax regulations to attract foreign capital.

In addition, bank failures and bank runs are often contagious and can lead to the meltdown of the financial system. Given that financial systems are increasingly interconnected across countries, the failure of foreign subsidiaries may amplify the risk contagions and shock transmission beyond the local market. Thus, this paper also provides policy implications for regulators worldwide regarding the importance of disclosure practices among banks' foreign subsidiaries.

Rise of Bank Competition: Evidence from Banking Deregulation in China

Haoyu Gao (Central University of Finance and Economics), Hong Ru (Nanyang Technological University), Robert M. Townsend (Massachusetts Institute of Technology) and Xiaoguang Yang (Chinese Academy of Sciences)

This paper studies the effects of China's 2009 bank entry deregulation on competition dynamics among banks and on economic activities using proprietary loan-level data and bank branch population data in the country. By tracing out individual loans, the authors find that the new entrant banks target mostly the existing borrowers of the incumbent banks.

After the deregulation shock, new entrant banks tended to lend significantly more to inefficient state-owned enterprises (SOEs) that have implicit government guarantees. Although the deregulation makes credit allocation worse across firms, it has significantly positive effects on individual firms with bank credit access. The deregulation leads to lower interest rates, better internal ratings, more third-party guarantees, and lower delinquency rates of the loans from new entrant banks. These better loan contract terms lead to increases in firms' assets investments, employments, net incomes, and ROA. These positive effects on loan contract terms and on firm activities are more pronounced for private firms.

The study uses unique loan-level data and firm-level survey in China to trace each loan issued by big four commercial banks and twelve joint equity banks and finds that increased competition leads to more credit allocation toward SOEs, especially the inefficient ones with higher political hierarchy and softer budget constraints. Besides the worse credit allocation across firms, the authors find that firms with bank credit access can benefit from increased competitions among banks by better loan terms.

The authors say that these opposing forces explain the mixed evidence from previous studies on the economic consequences of bank competition. Whether bank competition is good or bad for economic growth is the central question worldwide. This paper provides the detailed analysis and establishes causal links between bank competition and growth in China. The country experienced unprecedented high economic growth during last decades and is now the second largest economy worldwide. During this economic growth, China has also developed the world largest debt market. However, researchers, practitioners, and policy makers have heavily criticized the inefficient credit allocation in China. The government has been pushing the financial reforms to improve this situation such as deregulations in banking sectors. However, for policy makers, it is important to understand the countervailing effects of banking deregulation, especially the adverse effects. In China, informal lending channel is a key to the development and private firms usually have limited access to formal lending channels such as bank loans.

The authors say that there are several ways these findings can be reconciled by this paper. First, they find that increased competition in the banking sector might have helped firms grow, especially for private firms. Second, bank competition and expansion might have adverse effects on credit allocation across firms. Other reforms should be implemented together with banking sector, i.e., removing government guarantees for SOEs. This would allow more (private/efficient) firms in China to take different financing strategies like switching from informal to formal lending channels.

A Quantile Regression Analysis of Housing Price Distributions Near MRT Stations

Mi Diao (National University of Singapore), Daniel P. McMillen (University of Illinois) and Tien Foo Sing (National University of Singapore)

The Rail Transit System (RTS) has been an important infrastructure in densely populated cities. Commonly known as Mass Rapid Transit (MRT) in Singapore, it helps alleviate over-crowding and congestion in the central business district (CBD). The government plans to double the MRT lines to 360 km by 2030. 8 out of 10 households will live within 10-minute walking distance to the closest MRT stations. With improved accessibility via the MRT system, households are more willing to move to new housing estates located further away from the employment centres. As a result, the gap in land prices between the urban and the suburban areas becomes smaller. This study aims to test the effects of MRT stations on housing prices and marginal willingness to pay (MWTP) to live near MRT stations.

The authors chose Singapore as it is a unique laboratory to test the policy shocks. With its high housing price and car ownership costs, public transportation could have significant impact on the trade-off in housing location choice. The paper focuses only on the Circle MRT Line (CCL) as it encircles the urban fringe areas covering a very diverse mixed of housing types in the neighbourhoods, from luxury to mass market housing options.

This study originates from an earlier study by Diao, Leonard and Sing (2017), which tested the "MWTP" effects designed around the opening of the CCL in Singapore. Samples are divided based on their distance to the closest CCL MRT stations before and after the opening. Houses that are located within within and outside the network distance, associated with the opening of MRT stations along the CCL in Singapore. Accounting for distributional effects in the model, stronger effects are found in the 50th percentile (medium) houses at 9.26%, whereas the effects are smaller in the 10th percentile (smaller) houses and 90th percentile (larger) houses at 4.14% and 6.56%, respectively. After adjusting the areas with overlapping The results reaffirm the earlier study that opening of CCL results in positive assets. More importantly, when estimating the relative price of houses, factors like measurement of network distance, overlapping spaces and difference in distributions matter.

Overall, the study shows that price and structural changes are different between the two zones. The samples within the 600 m

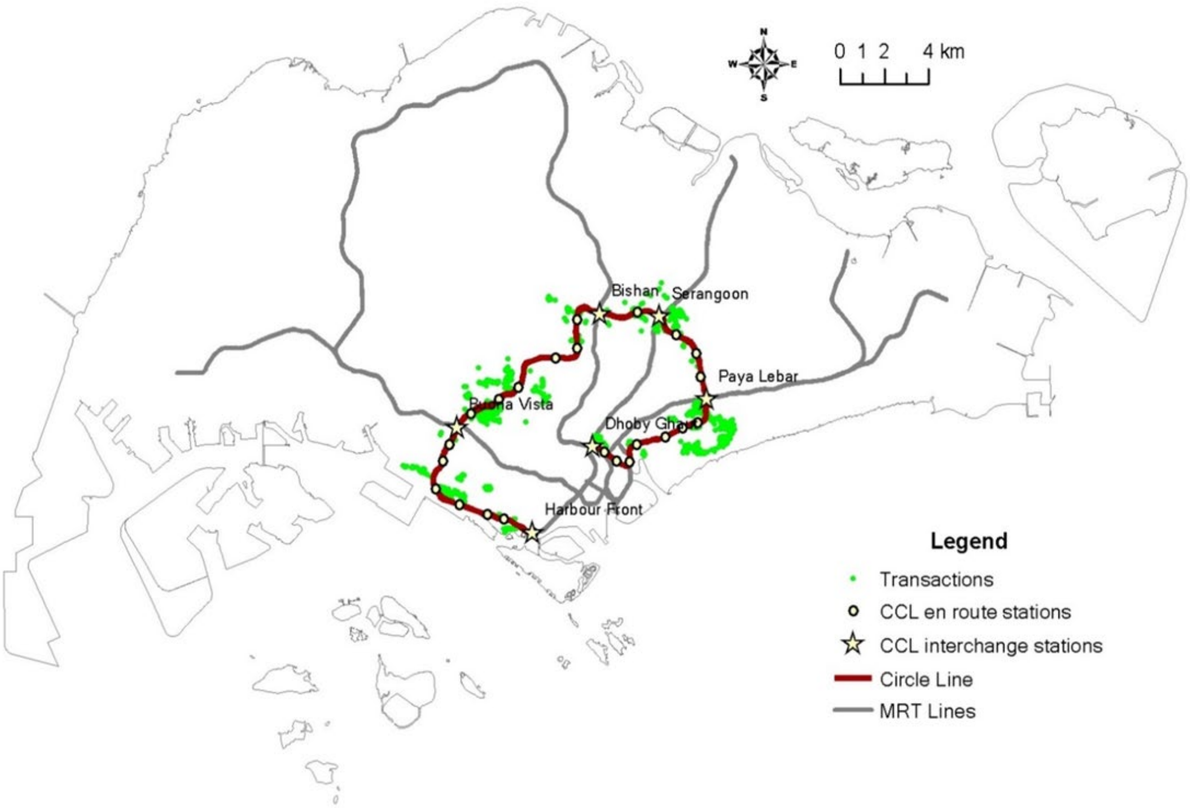


Figure 2: MRT Network and Non-Landed Private Housing Transactions

Note: The Figure shows the map of Singapore, and the darken solid (red line) shows the Circle line MRT stations on the line are represented by dot (en-route stations) and star (interchange stations); and the light green dot represent the distributions of housing samples along the Circle Line.

600 m network distance to CCL stations are sorted in a treatment group while the houses outside the 600 m range are in a control group. However, their model only estimated the average treatment effect for the group within the 600 m network distance, before and after the opening of CCL relative tothe control group outside the 600 m range; but , it does not examine the difference in distributions.

The authors make two significant extensions to the earlier study. First, to analyse the distributional treatment effect on the samples spaces, same effects of distributions are observed, but the percentage difference is smaller. Second, to verify if the variables influencing the distributional effect in the housing samples after the CCL opening for samples within the 600m network distance. The authors find that transactions in these areas tend to have lower quality (such as smaller size), but are more expensive after the opening of the CCL. Whereas the effects are weaker for the group outside the 600 m range.

network distance cause larger (90% percentile) houses to be replaced by smaller (10% percentile) houses, but the proportionate change in quantity over the proportionate change in price increases more significantly for smaller houses than for larger houses.

More tests can be done in future to see if more high-income households have since moved away from areas near MRT stations.

p-hacking: Evidence from Two Million Trading Strategies

Tarun Chordia (Emory University & ABFER), Amit Goyal (University of Lausanne) and Alessio Saretto (University of Texas at Dallas)

In this study the authors construct a large laboratory of over two million trading strategies by data-mining the two most commonly used datasets in finance – CRSP and COMPUSTAT. They use this large sample for three purposes. First, the study evaluates the properties of multiple hypothesis testing (MHT) methods when applied to financial data. Second, they provide multiple hypothesis based thresholds to evaluate trading strategies. Third, the study quantifies the proportion of false discoveries due to the failure to account for testing a multitude of hypotheses. The authors' estimates for the proportion of lucky discoveries is over 90%, which is much larger than that previously reported.

By considering all variables in CRSP and COMPUSTAT that have at least 30 firms with 30 years of data, the authors obtain a comprehensive set of trading strategies. These strategies include those that have been studied and published, those that have been studied but not published (possibly because of a lack of significance), and those that have not been studied (maybe because researchers cannot describe an intuitive story for why these strategies should or should not work). By not filtering the strategies on their ex-post significance, and by not relying on published anomalies, the large-scale exercise avoids p-hacking and data snooping.

The paper relies extensively on MHT for conducting tests. The statistics and economics literature has proposed a variety of ways for controlling the number of null hypothesis that are erroneously rejected in testing multiple hypotheses. The authors consider the three most common approaches: family-wise error rate (FWER), false discovery rate (FDR), and false discovery proportion (FDP). FWER controls the probability of making more than one false rejection, FDP controls the probability of a user-specified proportion of false rejections in a given sample, while FDR controls the expected proportion of false rejections.

The authors examine alphas from the long-short decile portfolios as well as the Fama-MacBeth (1973) (FM) coefficients on these variables. The traditional statistics show a large number of rejections of the null of no profitability. However, using the proper statistical hurdles based on MHT, the study finds far fewer rejections of the null. The results are robust to the inclusion of small stocks, various sample definitions, and the application of different methods and factor models to adjust for the risk of the strategies.

More importantly, the study focuses on the economic significance of the strategies that survive the statistical hurdles. The authors require the strategy to not only have a significant alpha but also a significant FM coefficient. In addition, they require that the Sharpe ratio of the strategy exceed that of the market. With these additional economic hurdles, the authors are left with only a handful of significant strategies. The proportion of lucky rejections is close to 98% meaning that a vast majority of findings reported in the literature are likely false.

Importantly, the results also suggest that markets are quite efficient after all.

About ABFER

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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 6th Annual Conference which was held in May 2018 at Shangri-La Hotel, Singapore. More information on the conference can be found here.

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