THE EFFECT OF GLOBAL FINANCIAL MARKETS ON BUSINESSES

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ABSTRACT

This paper reviews the theory and evidence on the effects of globalization of financial transactions on businesses. Two important benefits are identified. First, globalization reduces a company’s cost of capital. Second, globalization improves corporate governance so that manager actions are better aligned with shareholder interests. This improvement in corporate governance further contributes to a reduction in a firm’s cost of capital.

INTRODUCTION

Entrepreneurs with good ideas are constrained by the amount of capital they can raise. Although they can use their own money and borrow from family and friends, these are limited sources of capital. Eventually, if they want to make their firms achieve their potential, they have to fund growth using other people’s money. They can borrow from fellow citizens under a contractual obligation to pay them back with interest – debt – or they could make these citizens co-owners, with a promise to share all the ups and downs of ownership – equity.

Today we take the existence of debt and equity as prosaic facts of economic life. We should not. The ability of firms to raise money from fellow citizens is remarkable. Equity is more of a paradox than debt. Think about it. If you buy shares (firm equity), you give money to a firm that has no contractual agreement
to give you anything back. If you buy corporate bonds (firm debt), even though
the firm has a contractual agreement to return your principal with interest, this
agreement is only valid if the firm is solvent. It is no wonder, then, that in the
history of finance, debt arrived before equity.1

If the ability of firms to raise money from citizens is remarkable, the ability of
firms to raise money from foreigners is a miracle. But globalization is doing just
that. Local U.S. corporate bonds and local U.S. equity held by foreign investors,
or foreign corporate bonds and foreign equity held by U.S. investors, are on the
order of billions of dollars. If cross-border transactions for the whole world are
included, local securities held by foreign investors are on the order of trillions of
dollars.

How has this globalization of financial transactions affected businesses? This
paper reviews the impact on two aspects of business: the firm’s cost of raising funds
in capital markets (its “cost of capital”), and the extent to which the firm practices
good corporate governance. We discuss the conditions under which globalization
would be expected to reduce a firm’s cost of capital and review the empirical evi-
dence on whether such a decline has occurred. We then examine how globalization
has improved corporate governance and how this improvement itself has led to a
decrease in a firm’s cost of capital. The final section concludes by discussing
questions that remain to be addressed by future research.

THE EFFECT OF GLOBALIZATION ON THE
COST OF CAPITAL

Firms undertaking investments necessary to their growth turn to investors for
funding. When are investors willing to provide this funding? When they expect
to receive a rate of return that compensates them for the risk of their investment.
The greater the risk, the greater the return required to compensate them for the
use of their funds. This required return demanded by investors is the firm’s cost of
capital. In deciding on the worthiness of an investment project, firms compare the
cost of capital with the investment’s expected future return. If the cost of capital
rises relative to the expected return of the investment, then the project is less likely
to be profitable and will be rejected. Proper measurement of the cost of capital
therefore becomes critical to the correct assessment of an investment’s benefits.

Globalization can affect a firm’s cost of capital because it alters the risk of a firm’s
investment.2 To see why, consider a small, closed economy that tends to specialize
in the production of steel. If steel production is a large fraction of the country’s total
production, then investors have few alternative investment opportunities available
to them. In this case, the variability of an investor’s return on a portfolio of that
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country’s assets is largely determined by the variability of the return on steel. Steel producers seeking to raise capital will need to compensate investors for this risk with a higher return, which will raise the firm’s cost of capital.

Suppose this economy decides to open its market so that foreign investors can invest in the country’s steel firms and domestic investors can invest in other firms outside their own country. Now foreigners can assume some of the risk that, prior to liberalization, was borne fully by domestic residents, and domestic residents can diversify their portfolio holdings outside their home market. Whereas prior to liberalization the risk of a domestic steel firm was assessed relative to the other firms in the home market, now investors will assess the risk of domestic steel investments relative to an expanded set of foreign and domestic firms. If there are firms within this expanded set whose returns are not highly correlated with those of domestic steel producers, then investors are able to diversify away some of the risk of steel return variability. That is, the variability of domestic steel returns contributes less to the variability of investors’ total portfolio after liberalization. Under these conditions, globalization will reduce the required return on steel investments and lower a steel firm’s cost of capital.

A fall in the cost of capital could yield several benefits for the steel firms (Stulz, 1999a). Projects that previously were perceived to be unprofitable now become profitable. The increased attractiveness of investment projects may spur greater investment in the steel industry. Finally, as discussed more fully below, the attraction of new investors to the steel industry could increase the monitoring of corporate activities and improve corporate governance in this sector of the economy.

While it is easy to speculate about the beneficial effects of globalization on a firm’s cost of capital, the estimation of any benefits poses a greater challenge. This difficulty arises particularly in calculating the cost of equity capital, or the required return on a firm’s stock, because it requires a knowledge of whether and how investors require compensation for various types of risk.

One way to estimate the effects of globalization on a firm’s cost of capital is to specify an asset pricing model that relates an asset’s required return to risk factors, and then test whether a model estimated using global risk factors dominates one estimated using only domestic risk factors. An example of a model that has been tested in this fashion is the Capital Asset Pricing Model (CAPM). According to CAPM, the required return on a firm’s stock depends on a single source of risk: the extent to which the firm’s stock moves together with other stocks in the “market portfolio,” a portfolio of all stocks available to investors. An investor will require a higher return on a stock that moves closely with the market portfolio because the opportunities for risk reduction through diversification are limited. Investors will require a lower return on stock that does not closely mimic the market portfolio because more of the firm’s risk can be offset through diversification.
In the context of CAPM, globalization affects how investors determine their market portfolios. In a market completely segmented from foreign markets, the “market portfolio” is the portfolio of domestic assets. If globalization eliminates restrictions on investment, then the “market portfolio” becomes the portfolio of world assets, and a stock’s required return will now be assessed by its co-movement with the world market portfolio. A test of globalization’s effects therefore involves testing which source of risk – domestic market or world market – better explains the cross-section of returns.

Many studies that have tested CAPM with both global and domestic market risk factors find that a global CAPM outperforms a purely domestic one in developed countries (Chan, Karolyi & Stulz, 1992; De Santis & Gerard, 1997; Harvey, 1991; Korajczk & Viallet, 1990; Stehle, 1977). World market risk is therefore an important component of a firm’s cost of capital for these countries, and firms that use the domestic CAPM to evaluate investment projects are likely to undervalue an investment’s worth. When tests of the global CAPM are applied to emerging market stock returns, however, the results indicate that local factors remain important to the pricing of emerging market stocks (Bekaert & Harvey, 1995; Harvey, 1995). These results suggest that liberalization in some emerging markets has been incomplete and in some cases not credible. As the liberalization process continues in these markets, we would expect the risk reduction benefits of globalization to translate into a lower cost of capital.

While much of the evidence indicates that a global CAPM outperforms a domestic one, studies also find that a global CAPM does not completely explain the behavior of stock returns. These pricing errors could be due to the failure of the model to account for additional risk factors, other than world market risk, that may affect required returns. Foreign exchange risk is one factor that may affect an asset’s required return. When purchasing power parity does not hold, investors in different countries can pay different prices for the same good when it is evaluated in the same currency. Unanticipated changes in exchange rates therefore represent another source of risk that is priced. Recent evidence suggests that asset-pricing models that take into account foreign exchange risk perform better than those that do not.3

Empirical studies have also compared local and global versions of models in which multiple risk factors affect an asset’s expected return.4 Some of the possible risk factors that have been examined are the size of the firm, the ratio of its book-to-market value of equity, and the time of year.5 The evidence on the ability of a global multi-risk factor model to outperform a single-risk factor model such as the CAPM is mixed. In addition, some tests of multiple risk factor models find that local factors remain important to the pricing of securities.6 As with the CAPM, however, these multi-risk factor models are unable to accurately account for the behavior of returns.
To summarize, most of the empirical studies indicate the importance of global factors to the estimation of the cost of capital. However, the empirical models to date do not adequately explain the cross-sectional and time-series behavior of expected returns, and hence do not completely explain the cost of capital. It is important to remember, however, that tests of the world CAPM or global multi-factor models are implicitly joint tests of the asset-pricing model specification and of the hypothesis that financial markets are integrated internationally. Pricing errors could arise from the inappropriateness of the specification or from the existence of implicit or explicit barriers to capital movements.

An alternative way to test the impact of globalization on the cost of capital that avoids the estimation of an asset-pricing model involves specifying a proxy for the cost of capital and testing whether specific episodes of financial market liberalization affect this proxy. One proxy is the stock price. If financial market liberalization reduces the cost of capital in a country, then one would expect firms to have improved investment prospects, and their stock prices should rise. The evidence supports the hypothesis that financial market liberalization raises stock prices or, equivalently, reduces a country’s cost of capital. One study of twelve emerging markets found that stock prices increased an average 26% during the eight months leading up to a country’s liberalization (Harvey, 2000). The change in a country’s aggregate dividend yield has also been used as a proxy for the change in a country’s cost of capital. Using this proxy, one study of twenty emerging market countries found that capital market liberalization reduces a country’s cost of capital by slightly less than one percent (Bekaert & Harvey, 2000). These changes, while statistically significant, are smaller than what one would have expected given the extent of the liberalization in some countries. It is possible, however, that inaccuracies in the model assumptions or in the dating of the liberalizations could cause the drop in the cost of capital to be underestimated.

Firm-level studies provide further evidence of the beneficial effects of globalization on the cost of capital of individual firms. This evidence indicates that the values of emerging market stocks that are eligible for purchase by foreign investors increase and the cost of capital falls, once governments liberalize their financial markets (Chari & Henry, 2001). The stocks of firms that remain closed to foreigners however experience no such revaluation. Individual actions that firms take to globalize their financing sources, such as cross-listing their stock on foreign stock exchanges, can also reduce a firm’s cost of capital. Empirical investigations of these decisions generally show a positive revaluation following the announcement or actual listing of a stock’s cross listing.

Taken together, the empirical evidence to date suggests that globalization alters how investors perceive the risk of their investments. When the increased investment...
opportunities afforded by globalization allow investors to better diversify their
risks, a firm’s cost of capital falls and its stock price rises.

THE IMPACT OF GLOBALIZATION ON
CORPORATE GOVERNANCE

As globalization increases the ability of companies and investors to search the
globe for preferred financing or investment avenues, two critical questions emerge.
First, what are the ways in which the foreign suppliers of finance to domestic
corporations assure themselves of getting a return on their investment? Second,
what are the ways in which the foreign owners of capital try to align the interests
of the domestic controllers of capital – the company managers – with their own
interests? These are questions about international corporate governance. We
review seven general corporate governance mechanisms, with particular emphasis
on how these are being affected by globalization.

The board of directors of a firm, in principle, represents the owners. Its responsi-
bility is to monitor management, which it is supposed to do by crafting an effective
“carrot and stick” incentive mechanism. This involves the design of a managerial
compensation scheme that rewards the manager if the company value increases,
and punishes the manager, sometimes by outright firing, if the company value
decreases. One problem with boards is that managers may determine its compo-
sition. The board’s independence, therefore, seems to be desirable. Globalization
has accelerated the desire for board independence. Codes of best practices issued
in many countries around the world have sought to move boards towards greater
representation by non-executive directors. The Cadbury Committee report of the
U.K. has been particularly influential in this dimension. Has all of this affected
the bottom line? The evidence to date is that the number of outside directors is
increasing, and these outside directors have been altering board decisions in some,
but not all, countries studied. It is still an open question whether company value
has been directly impacted.

Corporate governance is a big problem if ownership is diffuse, because then it is
not in the interest of a tiny owner to bear the entire cost of monitoring but to share
with every other owner the benefit of monitoring. This is a free-rider problem. So a
second way to monitor management is to have active large shareholders instead of
many small shareholders. One problem with active large shareholders is that, like
management, they have their own self-interests. Research in the U.S. has shown
a complex relationship between the size of ownership of active shareholders and
company value – when ownership is small, active shareholders want to free-ride,
but when ownership is big, they prefer to entrench themselves rather than promote
shareholder interest. Globalization makes it possible for investors from other
countries to buy significant stakes in a firm and monitor management. Although
this has led to an anti-foreign backlash – note that five years after the Southeast
Asian crisis, despite all the talk of cleaning up bad loans, only a handful of banks
have been sold to foreigners – increasing foreign ownership of local firms is a fact.
Has all of this affected the bottom line? The evidence to date has been indirect.
It comes from the ADR market, where it has been documented that foreign firms
listed in the U.S. are worth more than their local counterparts (Doidge, Karolyi &
Stulz, 2001). We do not know whether this is true for other countries.

A third way to monitor management is through a well-functioning capital market
in its role as a certifier. Commercial banks that issue loans, investment banks that
help firms sell their securities, analysts who give buy/sell recommendations, rating
agencies that rate bonds, external auditors who verify financial statements, the
financial press that plays the watchdog role, and securities exchanges with their
stringent listing requirements are all certifiers. One problem with certifiers is that
they too are prone to conflicts of interest. The Glass-Steagall Act of 1933, which
has now been abolished, was primarily established in the U.S. to forbid commercial
banks that had close relationships with firms from holding the securities of those
firms. The recently enacted Sarbannes-Oxley Act of 2002 in the U.S. attempts
to prevent conflicts of interest among auditors. Globalization has dramatically
increased the demand and supply of certifiers. The rating agencies, Moody’s and
Standard & Poor’s, have vigorously expanded their activities beyond U.S. borders.

Cross listing of equity in foreign exchanges has increased. A fourth way to monitor management is through a well-functioning capital
market in its role as a market for corporate control. When internal corporate
governance systems fail, the last resort, if a market exists, is for an outside party to
take control of the firm. It is in the interest of the outside party to wrest control
because the party could then, by instituting changes, increase company value from
its current low level and share this increase with the other shareholders. The market
for corporate control has been very active in the U.S. Target firms are almost always
bought at a premium, thereby creating value for the shareholders of the target firm.
The jury is still out on whether shareholders of the acquiring firm benefit, though
the gain of the target outweighs the loss of the bidder. This leads us to the dark
side of this mechanism for corporate control. An acquirer may simply be wasting
corporate resources overpaying for acquisitions in order to create a business em-

pie. Globalization dramatically increased cross-border mergers and acquisitions
by U.S. firms about 500% in the 1990s. Although we have no research on whether
this has been beneficial for the target companies, we do have research showing that
it has been value-reducing for the acquiring U.S. companies (Denis, Denis & Yost,
2002). We do not know whether this is true for non-U.S. acquiring firms as well.
A fifth way to monitor management is by public disclosure of firm-specific information. The more information a company provides, and the stronger is its commitment to providing continuing information, the less costly it is for investors to monitor management. Laws and regulations of all countries mandate public disclosure of certain types of firm-specific information at the time of security issuance, and they mandate periodic disclosure of audited financial statements. Although these laws exist in all countries that have capital markets, there is huge variation among countries in the amount of information that is required to be disclosed, and the degree to which disclosure laws are enforced. Research has shown the U.S. to be in the top in nearly all surveys on disclosure quantity and quality. We also know that if foreigners receive less information, they demand a higher return on their investment in a country. Globalization has dramatically affected the demand for good information from foreign firms. A response to this demand has been the significant number of foreign firms opting to recast all their financial statements using U.S. GAAP standards or International Accounting Standards. Although it is still an open question about which of these accounting standards are better, the debate about local standards versus global standards seems to be settled.

A sixth way to monitor management is through the legal system, which plays two roles. First, it limits the ability of management to expropriate resources from investors, especially minority investors. Second, through the use of lawsuits, it provides a mechanism for owners to discourage managerial decisions that destroy company value. There has been extensive research on the effect of legal systems on corporate governance. Countries have been scored on the rights they provide to their shareholders and to their creditors. Common law countries provide the strongest degree of protection for shareholders, whereas French civil law countries provide the least. It has also been found that if the law does not protect the owners from the controllers, then the owners become the controllers; the countries with the least legal protection are also characterized by a high concentration of equity ownership (in governments or in families) and poorly developed capital markets. The conflict between owners and controllers is now replaced by a conflict between dominant shareholders and minority shareholders.

The seventh method of monitoring management is to change the nature of the dominant shareholder. Except for the Anglo-Saxon countries, the dominant shareholder elsewhere is often the government or the family. That is fast changing. Beginning with the privatizations under Prime Minister Thatcher in the U.K. in the 1980s, numerous state-owned firms all over the world have been sold to the public. Research has shown that in most settings privatization "works," in that the firms become more efficient, more profitable, financially healthier, and rewarding for investors. While this holds in both transition and non-transition economies, there is more variation in the former. Especially in transition economies, the identity
of the new owners and managers is important in determining post-privatization performance.\textsuperscript{18} Stories in the financial press reveal that family businesses are also being restructured and sold at record rates. Unfortunately, we have no systemic global research on family businesses.

What then, has been the effect of globalization on corporate governance? It has been unequivocally positive.\textsuperscript{19}

**CONCLUSION**

This paper has reviewed two important benefits of globalization on businesses. First, the evidence suggests that globalization reduces the return investors require to supply capital to businesses, and hence reduces the firm’s cost of capital. Second, globalization improves corporate governance so that manager actions are better aligned with shareholder interests. This improvement in corporate governance in turn contributes to a fall in the cost of capital.

It is also clear that the globalization benefits revealed by empirical research are lower than what one would expect, a result that suggests that markets are not fully integrated internationally. Indeed, investors continue to have a “home bias” in that they hold a higher proportion of home stocks relative to the weight of their home market in the world market portfolio.\textsuperscript{20} This home bias persists across all markets even though explicit barriers to international investment have been dramatically reduced or eliminated in many markets. If foreign and domestic investors are unwilling or unable to buy stocks outside their home markets, then the risk-reduction benefits of financial market liberalization will not be obtained and cost of capital reductions will be minimal.

Possible explanations for this home bias include the existence of implicit capital market barriers, information differences between foreign and domestic investors, differences in consumption opportunities, and behavioral biases. If we are to understand globalization’s effect on business, we must first understand the factors that either encourage or prevent investors from purchasing foreign stocks. Future research devoted to understanding the causes of home bias will therefore provide important insights into how globalization is likely to affect a firm’s cost of capital over time.

**NOTES**

1. Records of two banks in Mesopotamia (around 3000 B.C.) are the first records of debt in history. The first recorded shares were of the Russia Company (U.K., 1553 A.D.).

2. Many of the points raised in this section come from Stulz (1999a, b) and Karolyi and Stulz (2002). These papers provide extensive references on the topics discussed below.
3. See, for example, Dumas and Solnik (1995) and De Santis and Gerard (1997), who find that foreign exchange risk, along with world market risk, is priced.


5. The latter risk factor is often included to account for the famous “January” effect anomaly.

6. Cho, Eun and Senbet (1986) reject the joint hypothesis that markets are internationally integrated and that the international APT holds, while Korajczk and Viallet (1990) find that the international APT outperforms the world CAPM. However, they also find that the domestic APT outperforms the international APT. Fama and French (1998) find that a two-factor world CAPM explains returns, while Griffin (2002) finds that a domestic three-factor model is better able to explain the time variation of country returns, and that the addition of foreign factors leads to an economically small increase in explanatory power.

7. Evidence on the behavior of closed-end country funds (funds that invest in the assets of a particular country but are priced in the U.S.) surrounding financial market liberalization is also consistent with the hypothesis that financial market liberalization increases diversification benefits and reduces a country’s cost of capital. See Bekaert and Urias (1996) and Bonser-Neal, Brauer, Neal and Wheatley (1990).

8. See Foerster and Karolyi (1999), Miller (1999), and Errunza and Miller (2000). Stulz (1999a), however, notes that the revaluation effect documented in these studies can be consistent with other explanations.


10. The tension between owners and controllers was recognized even by Adam Smith (1776). Jensen and Meckling (1976) first provided a formal model for this tension in the financial economics literature.

11. During the past five years, 25 new codes of best practice were published. There are currently 39 codes operating in Europe. Most firms, unfortunately, do not comply (Financial Times, April 8, 2002).


14. Porsche decided to exit Deutsche Börse in favor of joining the Morgan Stanley Capital International (MSCI) Index (Financial Times, August 8, 2001). Lang, Lins and Miller (2001) have shown that foreign ADR listings in the U.S. stock markets serve as credible certification.

15. See, for example, the recent survey by PricewaterhouseCoopers (2001).

16. See Bhattacharya and Daouk (2002) for the link between insider trading and the cost of equity; see Bhattacharya, Daouk and Welker (2002) for the link between earnings opacity and the cost of equity.

17. La Porta, Lopez-de-Silanes, Shleifer and Vishny have a number of papers exploring this line of research. La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998) is a good introduction.

18. Conclusion drawn by Megginson and Netter (2001) from their comprehensive survey on privatization.

19. The Mercato Italiano di Borsa, Italy’s stock exchange, launched the STAR1 exchange, a separate market for small and midsize companies that follow strict governance requirements. Its performance thus far provides more evidence that good governance pays.
To be listed on the STAR1 exchange, a company must float at least 35% of its new issues on the open market, include a minimum number of independent non-executive directors on its board, and ensure that the compensation of management and directors reflects its performance. These companies must also adhere to more rigorous disclosure requirements than do their counterparts on the Borsa. The STAR1 exchange now lists 37 companies, with a total market capitalization of $7.5 billion. They outperformed their counterparts on the Borsa by 16.5% from April 2001 to March 2002, and the weighted average of their market-to-book ratios is 3.8, compared with 2.1 for all companies listed on the Borsa (The McKinsey Quarterly, 2002, No. 3).

20. For example, holdings of foreign stocks by U.S. investors are roughly 10% of a U.S. investor’s portfolio, even though foreign stocks comprise almost 50% of the world market portfolio (Ahearne, Griever & Warnock, 2001). Also see Lewis (1999) and Karolyi and Stulz (2002) for a discussion of the home bias and for an extensive list of references.

REFERENCES


**Uncited references**