

McKinsey Global Institute



March 2013

Financial globalization: Retreat or reset?

Global capital markets 2013

The McKinsey Global Institute

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Preface

The globalization of finance appeared to be an unstoppable trend over the past 30 years. As the world economy became more tightly integrated, new technology and access to new markets propelled cross-border capital flows to unprecedented heights. But the financial crisis upended many of the world's assumptions about the inevitability of growth and globalization. Growth in financial assets has stalled as banks and borrowers deleverage. Cross-border capital flows have fallen sharply, sending financial integration into reverse.

Some of the shifts under way represent a healthy correction of the excesses of the bubble years, but a continued retrenchment could have damaging consequences for economic growth. At this critical juncture, the choices made by global policy makers will determine whether a more stable and balanced system will emerge—or whether financial development will stall as nations turn inward.

This report, the latest in our ongoing series on trends in global capital markets, aims to clarify the future of financial globalization in this new and uncertain era. As with previous research, it draws on our proprietary databases of financial assets in 183 countries around the world.

This research was led by McKinsey Global Institute principal Susan Lund; Toos Daruvala and Philipp Härle, directors of McKinsey & Company; and McKinsey and MGI director Richard Dobbs. The team was managed by Ricardo Falcón and included Peter Chen, Jan Grabowiecki, Adil Kalam, Soyoko Umeno, and Robin Wood. We are grateful to Ju-Hon Kwek for his valuable industry insights; Georg Hartmann for his contributions to the early phases of this research; Tim Koller, Bin Jiang, and Bing Cao of McKinsey's Corporate Performance Center for their insights and support; and Alan Fitzgerald and Vivien Singer for their assistance. Thanks go to Lisa Renaud for editorial support and to other members of the MGI communications and operations team—including Julie Philpot, Rebeca Robboy, Marisa Carder, Tim Beacom, and Deadra Henderson—for their many contributions.

We are grateful to the academic advisers and industry executives whose expertise enriched this work. Howard Davies, chairman of the Phoenix Group and professor of practice at the Paris Institute of Political Science, and Richard Cooper, Maurits C. Boas professor of international economics at Harvard University, provided guidance and insights. We also benefited from the perspectives of Simon Gleeson, partner of Clifford Chance; Guilherme Lima, group head of strategy and planning, HSBC; Anna Marrs, group head of strategy and corporate development, Standard Chartered; Charles Roxburgh, director general of financial services, UK Treasury; and Philip Suttle, chief economist of the Institute of International Finance (whose team also provided data).

Our goal is to quantify and assess the trends that will shape capital markets in the years ahead. We hope this work will spark a productive discussion among policy makers and financial industry leaders about creating a balanced and stable global financial system that can support the world's growing investment needs. As with all MGI research, this report is independent and has not been commissioned or sponsored in any way by any business, government, or other institution.

Richard Dobbs

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March 2013

Retreat ...

1.9% annual growth in global financial assets since 2007, down from 7.9%

60% decline in cross-border capital flows from their 2007 peak

\$3.7 trillion
decline in cross-border claims by Eurozone banks since 2007

\$15.4 trillion
increase in government debt securities since 2007

7% emerging economies' share of global foreign investment in equities and bonds

... *or reset?*

32% share of global capital flows going to emerging economies in 2012, up from 5% in 2000

\$1.4 trillion
annual corporate bond issuance since 2009, double pre-crisis levels

40% of cross-border capital flows now made up of FDI, the most stable type of flow

\$1.9 trillion
in “South-South” foreign investments between emerging economies

30% reduction in global current account imbalances as percent of GDP

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Executive summary

As this report went to press, a number of major global equity markets were on the rise. Many were eager to take this rebound as a sign that the last vestiges of the financial crisis and the Great Recession are finally behind us.

But a deeper analysis finds that the financial crisis continues to have lingering and profound effects. For three decades, capital markets and banking systems rapidly expanded and diversified, but now that process—called financial deepening—has largely ground to a halt. Although global financial assets have surpassed their pre-crisis totals, growth has hit a plateau. In many emerging markets, the development of financial systems has fallen behind the pace of GDP growth.

Financial globalization has also stalled. Since 1980, unprecedented capital mobility has linked national financial markets into an ever more tightly interconnected global system. This process accelerated dramatically with the creation of a monetary union and a single currency in Europe, but the phenomenon of financial integration extended worldwide. When the 2008 crisis erupted, the intricate web of connections in the global financial system spread shocks very quickly. In the wake of the crisis, however, there has been a pullback. Cross-border capital flows collapsed, and today they remain 60 percent below their pre-crisis peak.

Using our proprietary database of the financial assets of 183 countries around the world, this report considers the trends of financial deepening and financial globalization in tandem.¹ In a healthy ecosystem, these two forces would interact in a virtuous cycle, with borrowers and savers from different countries connecting in robust, transparent, and liquid financial markets. But the financial crisis ushered in a period of retrenchment—some of which, especially in advanced economies, reflects a necessary correction. Nevertheless, there is also a chance that this correction may overshoot, reducing the flow of private-sector financing needed for recovery and a return to economic growth.

Today global financial markets are at an inflection point. One path leads to a more balkanized structure that relies primarily on domestic capital formation and concentrates risks within local banking systems, while another points toward a healthier model of financial globalization that corrects the pre-crisis excesses while supporting more robust economic growth. Achieving this second outcome will require concerted actions by policy makers and financial institutions.

1 This is the latest in a series of McKinsey Global Institute reports on the state of global capital markets. See our previous research at www.mckinsey.com/mgi.

GLOBAL FINANCIAL MARKETS STALL

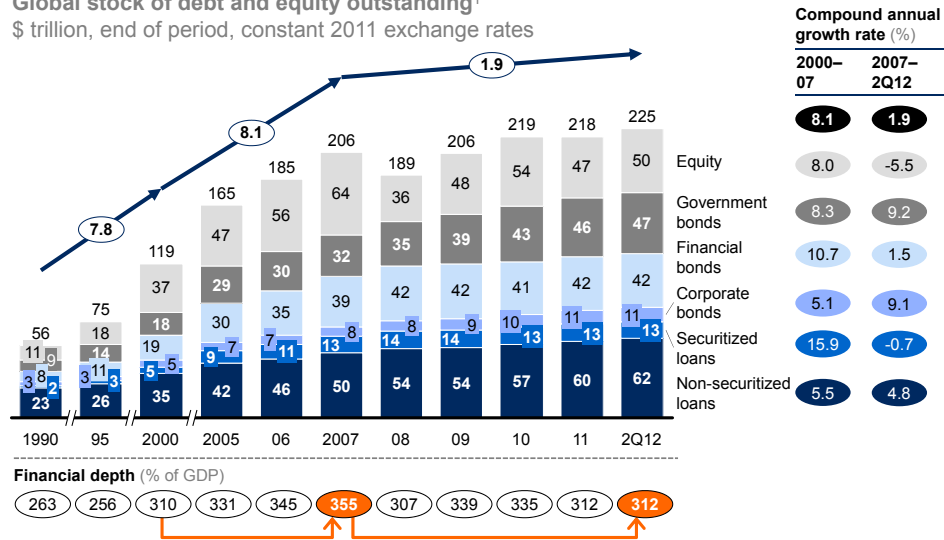
The world's financial assets—or the value of equity market capitalization, corporate and government bonds, and loans—grew from around \$12 trillion in 1980 to \$206 trillion in 2007. Financial depth, which measures those assets relative to GDP, rose from 120 percent to 355 percent of global GDP over the same period. But this rapid growth has stalled. Today the value of the world's financial assets stands at \$225 trillion, above the pre-crisis peak (Exhibit E1). But global financial assets have fallen by 43 percentage points relative to GDP since 2007—and by 54 percentage points if we exclude the recent rise in government debt. Their annual growth was 7.9 percent from 1990 to 2007, but that has slowed to an anemic 1.9 percent since the crisis.

Exhibit E1

Global financial assets have grown to \$225 trillion, but growth has slowed since 2007

Global stock of debt and equity outstanding¹

\$ trillion, end of period, constant 2011 exchange rates



¹ Based on a sample of 183 countries.

SOURCE: McKinsey Global Institute Financial Assets Database; McKinsey Global Institute analysis

The loss of momentum is not confined to the advanced economies² at the heart of the crisis. Emerging markets weathered the crisis well, but their financial depth is on average less than half that of advanced economies as of 2012 (157 percent of GDP compared with 408 percent of GDP). This gap was narrowing before the crisis, but it is no longer closing.

Some of the slowdown in the growth of global financial assets represents a healthy correction. Looking back, we can see that several unsustainable trends propelled a large share of the pre-crisis gains. The most notable of these factors was the increasing size and leverage of the financial sector itself.

² We use the terms *developed country*, *advanced economy*, and *mature economy* interchangeably throughout this report. We also use the terms *emerging market*, *emerging economy*, *developing country*, and *developing economy* interchangeably.

While Exhibit E1 offers an asset-class view of growth, our database allows us to separate out the financing available for different sectors of the economy: households and non-financial corporations, financial institutions, and government. This analysis reveals that the financial sector generated more than one-third of global financial deepening prior to the crisis. Bonds issued by financial institutions to fund lending activities and other asset purchases grew to \$39 trillion by 2007—roughly five times the value of bonds issued by non-financial companies.

One-quarter of financial deepening before the crisis was due to equity market valuations rising above long-term norms—gains that were erased in the crisis.³ Initial public offerings and new equity raising have fallen significantly since the crisis. Another factor adding to financial deepening during this period was a steady rise in government debt—a trend that is sustainable only up to a certain point.

Financing for households and non-financial corporations accounted for just over one-fourth of the rise in global financial depth from 1995 to 2007—an astonishingly small share, given that this is the fundamental purpose of finance. Since then, financing for this sector has stalled in the United States, as households and companies have deleveraged.⁴ Despite the lingering euro crisis, however, financing to households and corporations in Europe has continued to grow in most countries, as banks have stepped up domestic lending while reducing foreign activities.

The risk now is that continued slow growth in global financial assets may hinder the economic recovery, stifling business investment, homeownership, and investment in innovation and infrastructure. Our analysis suggests a link between financing and growth, showing a positive correlation between financing for the household and corporate sectors and subsequent GDP growth. A continuation of current trends could therefore slow the economic recovery.

CROSS-BORDER CAPITAL FLOWS DECLINE

Cross-border capital flows—including lending, foreign direct investment, and purchases of equities and bonds—reflect the degree of integration in the global financial system. While some of these flows connect lenders and investors with real-economy borrowers, interbank lending makes up a significant share. In recent decades, financial globalization took a quantum leap forward as cross-border capital flows rose from \$0.5 trillion in 1980 to a peak of \$11.8 trillion in 2007. But they collapsed during the crisis, and as of 2012, they remain more than 60 percent below their former peak (Exhibit E2).

As with financial deepening, it is important to disentangle the different components of growth and decline in capital flows. In the decade up to 2007, Europe accounted for half of the growth in global capital flows, reflecting the increasing integration of European financial markets. But today the continent's financial integration has gone into reverse. Eurozone banks have reduced cross-border lending and other claims by \$3.7 trillion since 2007 Q4, with \$2.8 trillion

3 We measure equity valuations by changes in the price-to-book ratio of listed companies. As of early 2013, some major stock market indices were nearing or had surpassed their pre-crisis peaks. However, equity market capitalization relative to GDP is still below the 2007 level globally and in most countries.

4 See *Debt and deleveraging: Uneven progress on the path to growth*, McKinsey Global Institute, January 2012.

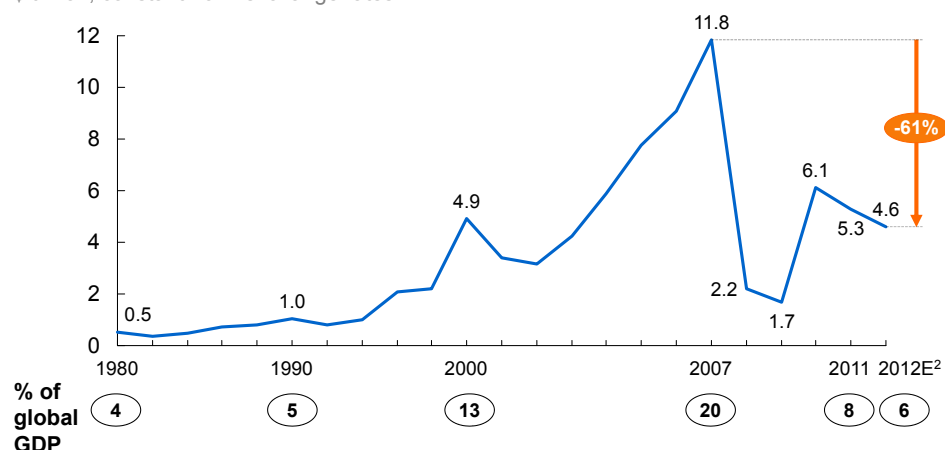
of that reduction coming from intra-European claims (Exhibit E3). Financing from the European Central Bank and other public institutions now accounts for more than 50 percent of capital flows within Europe. With hindsight, it appears that capital mobility in Europe outpaced the development of institutions and common regulations necessary to support such flows.

Exhibit E2

Cross-border capital flows fell sharply in 2008 and today remain more than 60 percent below their pre-crisis peak

Global cross-border capital flows¹

\$ trillion, constant 2011 exchange rates



¹ Includes foreign direct investment, purchases of foreign bonds and equities, and cross-border loans and deposits.

² Estimated based on data through the latest available quarter (Q3 for major developed economies, Q2 for other advanced and emerging economies). For countries without quarterly data, we use trends from the Institute of International Finance.

SOURCE: International Monetary Fund (IMF) Balance of Payments; Institute of International Finance (IIF); McKinsey Global Institute analysis

Exhibit E3

Since 2007, Eurozone banks have reduced foreign claims by \$3.7 trillion, \$2.8 trillion of which was intra-European

Consolidated foreign claims of Eurozone reporting banks (includes loans and other foreign financial assets)¹

By counterparty location, constant 2011 exchange rates

Eurozone bank claims on:	Change		Change	
	4Q99-4Q07	Compound annual growth rate (%)	4Q07-2Q12	Compound annual growth rate (%)
GIIPS ²	1,732	17	-1,176	-14
Other Eurozone	2,033	12	-665	-5
United Kingdom	1,609	16	-771	-9
Other Western Europe	291	11	-140	-7
Total Western Europe	5,665	14	-2,752	-8
United States	1,382	13	-781	-9
Other developed	509	6	-438	-9
Developing countries	1,182	13	240	3
Total	8,737	13	-3,732	-7

¹ Includes banks from Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, and Spain.

² GIIPS comprises Greece, Ireland, Italy, Portugal, and Spain.

SOURCE: Bank for International Settlements; McKinsey Global Institute analysis

Outside of Europe, global lending flows have also slowed. The modest increase in assets of banks in the United States, United Kingdom, Canada, and Australia is not nearly enough to fill the gap left by retreating European banks.

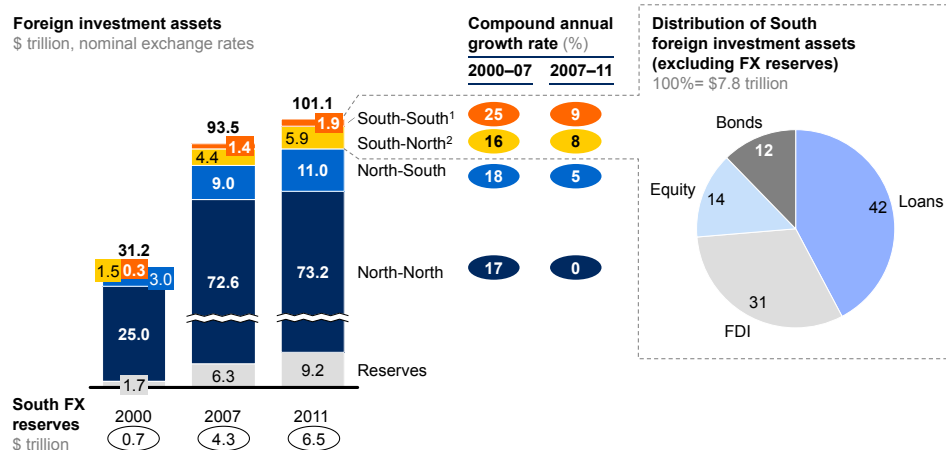
Facing new regulations on capital and liquidity as well as pressures from shareholders and regulators to reduce risk, many banks in advanced economies are winnowing down the geographies and business lines in which they operate. Since early 2007, commercial banks have sold off more than \$722 billion in assets and operations, with foreign operations accounting for almost half of this total. Regulators in many countries are moving to exert more control over the foreign banks that remain active in their jurisdictions, in some cases requesting that banks operate as subsidiaries rather than branches.⁵

In contrast to advanced economies, capital flows involving the world's developing countries have rebounded since the sharp decline in 2008–09. In 2012, we estimate that some \$1.5 trillion in foreign capital flowed into emerging markets, surpassing the pre-crisis peak in many regions. This amounted to 32 percent of global capital flows that year, up from just 5 percent in 2000. Capital flows *out* of developing countries rose to \$1.8 trillion in 2012. Central bank foreign reserves account for roughly 45 percent of the total stock of foreign assets. Foreign direct investment (by private-sector companies as well as state-owned enterprises and sovereign wealth funds) and cross-border loans (from commercial and development banks) have also risen sharply in recent years. Although most emerging-market investments are in advanced economies, some \$1.9 trillion of these assets are in other emerging markets—giving rise to the trend of so-called South-South investment (Exhibit E4).

Exhibit E4

Most developing countries' foreign investment assets are in advanced economies, but "South-South" foreign investment has also increased

Stock of total foreign investment assets of developing (South) and advanced (North) economies



1 Foreign investment assets of developing countries in other developing countries.
2 Foreign investment assets of developing countries in advanced economies.
NOTE: Numbers may not sum due to rounding.
SOURCE: McKinsey Global Institute Bilateral Foreign Investment database; McKinsey Global Institute analysis

5 A foreign subsidiary is a legally incorporated entity in the country and has its own capital base, while foreign branches do not. Over the past four years, cross-border lending through branches in Europe has declined twice as much (in both dollar and percentage terms) as foreign lending through subsidiaries.

Foreign direct investment (FDI), defined as investment that establishes at least a 10 percent stake in a foreign entity, has maintained better momentum than cross-border lending since the crisis. Although we estimate that FDI flows declined by 15 percent in 2012, they accounted for roughly 40 percent of global capital flows that year. This reflects in part the continued expansion of multinational companies as they build global supply chains and enter new consumer markets—and since many major non-financial corporations currently have large cash reserves, there is room for them to assume an even greater role as providers of capital, especially within their own supply chains. The growing share of FDI in global capital flows may have a stabilizing influence: our analysis shows that it is the least volatile type of capital flow in emerging markets and developed countries alike, as companies and investors typically make such commitments as part of a multiyear strategy. By contrast, cross-border lending, which dominated capital flows in the years leading up to the crisis, tends to be short term and can dry up quickly.

There is a bit of positive news to be found in the world's far smaller capital flows: global current account imbalances have declined some 30 percent from their peak when measured relative to global GDP. Although the current account deficits and surpluses in different countries did not directly spark the financial crisis, they did contribute to rapid growth in debt in some countries. In Europe, most of the periphery countries that were later at the center of the euro crisis ran large and growing current account deficits from 2000 to 2008—deficits that have been reduced sharply since then. Similarly, the current account deficit in the United States has shrunk by roughly 40 percent since its peak in 2006. Maintaining these smaller imbalances in the future would reduce one source of risk and volatility in the global financial system.

THE PATH FORWARD: TWO SCENARIOS FOR GLOBAL FINANCIAL MARKETS

With the ramifications of the financial crisis still unfolding and new regulations being implemented, two starkly different futures are possible. In one, the world remains on its current trajectory, with little financial market development and subdued capital flows. Although such an outcome may reduce the risk of a future financial crisis, slower economic growth may become the new normal. An alternative scenario would involve a “reset” of the financial system that corrects past excesses while enabling financial deepening and globalization to resume.

Scenario 1: Financial globalization retreats

If current trends continue, the value of financial assets relative to GDP would remain flat or even decline by 2020. This would reflect ongoing deleveraging of the household, corporate, and financial sectors in advanced economies, despite a continuing rise in government debt. It would also reflect no further financial deepening in developing countries. The retrenchment of global banks could lead to a loss of competition and expertise in the financial sectors of some smaller countries, driving up the cost of borrowing, and bank lending would be a smaller source of financing in advanced countries. Without robust cross-border capital flows or the presence of securitization and corporate bond markets to provide alternative channels, borrowers in these regions could face a credit crunch.

In this scenario, cross-border capital flows would not regain their pre-crisis peak for many years. Europe would stay on its current course—with no breakup, but only slow progress toward a banking union framework—and the continent's cross-border activity would continue to wane. Banks would focus on domestic activities and enter only those geographies where they have a clear competitive advantage. Investors would find limited options for entering potentially high-growth emerging economies; foreign capital would shy away from shallow markets in these countries that lack transparency and enforcement. Savers around the world would find it more difficult to diversify their portfolios geographically, potentially harming returns.

Sharp regional differences could emerge in the availability of capital. Some regions with high savings rates would find themselves with surplus capital, and a shortage of good investment opportunities in these countries could potentially result in lower returns for investors and savers. By contrast, other countries (including some advanced economies and many emerging markets) would find capital in short supply, constraining growth.

The crisis underscored the need for greater prudence and stability. But in fighting the last battle, it is easy to lose sight of new hazards that lie ahead. The current path runs the risk of choking off the financing needed for investment in business expansion, infrastructure, housing, R&D, and education. In a more credit-constrained world, all companies would need to consider how and where to raise capital.⁶

Scenario 2: Financial globalization resets

With the right actions by financial institutions and policy makers, the world could take a more balanced approach to financial market development and globalization that would support economic growth. This scenario hinges on putting in place a solid global regulatory framework to correct the excesses of the pre-crisis years. This includes well-capitalized banks, a clear plan for cross-border resolution and recovery, improved macroprudential supervision, and mutual confidence and cooperation among national regulators. A revitalized system would include healthy competition among an array of financial intermediaries and institutions that serve both borrowers and savers. Foreign capital would flow to where there are investment needs.

In this scenario, countries would pursue opportunities for sustainable financial deepening, such as the expansion of corporate bond markets. In many countries, even the largest companies get most of their debt funding from banks rather than capital markets. But as banks reduce leverage and in some cases need to reduce the size of their balance sheets, shifting some of this credit demand to bond markets would be beneficial. Our calculations suggest there is room for corporate bond markets to grow by more than \$1 trillion if large companies in advanced economies were to shift 60 percent of their debt funding to bonds—and significant additional growth could come from emerging markets. This is only a rough estimate of the scale of the opportunity, and a shift of this magnitude would take years to play out. However, we can already see that corporate bond issuance has increased significantly in all regions of the world since the financial crisis.

⁶ For more on this topic, see *Farewell to cheap capital? The implications of long-term shifts in global investment and saving*, McKinsey Global Institute, December 2010.

Developing nations also have significant room to deepen their financial markets. On average, equity market capitalization is equivalent to 44 percent of GDP in developing countries, compared with 85 percent in advanced economies. Credit to households and debt of corporations combined is only 76 percent of GDP in emerging markets, compared with 146 percent of GDP in advanced economies. McKinsey research has estimated that small and medium-sized enterprises (SMEs) in emerging markets face a \$2 trillion credit gap, and 2.5 billion adults around the world lack access to banking services.⁷ If developing nations converge to the average financial depth currently seen in advanced economies over the next two decades, their financial assets could grow from \$43 trillion today to more than \$125 trillion by 2020.⁸

Cross-border capital flows would post steady growth in this scenario. But instead of reopening the floodgates of volatile short-term lending and interbank lending, portfolio flows of equity and bond purchases and FDI would become larger components of international capital flows, enhancing stability. Investors would be able to gain much greater exposure to growth and diversification in the emerging world.

This alternative scenario could result in a system that provides financing for innovation and investment without sacrificing stability—if policy makers can balance these two goals. Without the proper regulatory framework in place, a return to rapid growth in financial assets and cross-border capital flows leaves the world vulnerable to the risk of yet another crisis—and all the collateral damage that would entail.

NAVIGATING THE NEW LANDSCAPE

Whether financial globalization retreats or resets, the post-crisis world demands a new and more nimble approach to public policy, banking, and investing. Decision making is more complex in a time of uncertainty, but the ideas below offer a starting point.

Policy makers: Resetting financial globalization

It will take concerted efforts by both national and international policy makers to move to the alternative scenario of a healthier global financial system. The following proposals would help to restore confidence and widen access to capital, setting this process in motion.

- Complete the current agenda for global regulatory reform.** The 2008 financial crisis and the subsequent euro crisis brought home the dangers of unsustainable financial deepening and capital flows. Healthy financial globalization cannot resume without robust and consistent safeguards in place to provide confidence and stability. Much is riding on the successful implementation of regulatory reform initiatives that are currently under way. These include working out the final details and implementation of Basel III, developing clear processes for cross-border bank resolution and recovery,

⁷ See *Two trillion and counting: Assessing the credit gap for micro, small, and medium-size enterprises in the developing world*, McKinsey & Company and the International Finance Corporation, October 2010, as well as Alberto Chaia, Tony Goland, and Robert Schiff, “Counting the world’s unbanked,” *The McKinsey Quarterly*, March 2010.

⁸ We created several scenarios for emerging market financial asset growth, based on different assumptions about GDP growth rates and exchange rates. See also *The emerging equity gap: Growth and stability in the new investor landscape*, McKinsey Global Institute, December 2011.

building robust macroprudential supervisory capabilities, and, in the Eurozone, establishing a banking union.⁹

- **Consider the hidden costs of closed-door policies.** Openness to foreign investment and capital flows entails risk, as the global financial crisis and subsequent euro crisis demonstrated, but it also brings clear benefits. Tightly restricting foreign banks and capital inflows may reduce the risk of financial contagion and sudden reversals of capital, but it also limits the benefits that foreign players can bring to a financial sector, such as greater capital access and competition. The right answer for each country will depend on the size and sophistication of its domestic financial sector and the strength of its regulation and supervision. But the objective of building a competitive, diverse, and open financial sector deserves to be a central part of the policy agenda.
- **Build capital markets to meet the demand for credit.** Capital markets are good sources of long-term finance—and they can provide crucial alternatives as banks scale back their activities. Most countries have the basic market infrastructure and regulations, but enforcement and market supervision is often weak. Standardized rating systems, clearing mechanisms, and a solid regulatory foundation are necessary prerequisites. Underlying the development of both equity and debt capital markets are robust corporate governance, financial reporting, and disclosure of companies seeking to tap these markets. When these elements are in place, a financial system is better equipped to attract capital and deploy it productively.
- **Create new financing mechanisms for constrained borrowers.** In an era of bank deleveraging, funding for large investment projects, infrastructure, and SMEs may be in short supply in many countries. But policy makers could promote the development of new financial intermediaries and instruments aimed at filling gaps in the current landscape. Public-private lending institutions and innovation funds, infrastructure banks, small-business lending programs, and peer-to-peer lending and investing platforms can increase access to capital for underserved sectors. These actions will become more urgent in an increasingly credit-constrained world.
- **Promote stable cross-border flows of finance.** Regulatory efforts have focused on containing the dangers of cross-border lending. By contrast, there has been relatively little discussion of unlocking what could be a major source of stable, long-term capital and higher returns at lower risk for savers and investors. Many public pension funds and insurance companies have strict geographic restrictions on their investment portfolios; these are meant to encourage investment at home, but they limit the potential returns and diversification that might come from seeking out growth in emerging markets. Designed to contain risk, they actually concentrate it by increasing domestic exposure. In addition to allowing the international diversification of portfolios, policy makers can look at removing legal barriers to foreign ownership and foreign direct investment, creating new channels (such as mutual funds) for retail investors in emerging markets, and creating cross-border resolution mechanisms for financial institutions and companies.

9 Three elements are under discussion in establishing a banking union in the Eurozone: common supervision of banks, common deposit insurance, and common authority for resolving failing banks. The European Central Bank is expected to assume supervisory responsibility for the largest banks in the Eurozone in 2014.

- **Use big data to improve information flows and market monitoring.** Poor information and data collection hampered the ability of financial institutions and regulators to recognize and act on the accumulation of unsustainable debt and leverage, opaque connections among institutions, and the concentration of risk. Healthier, deeper, and more open financial markets require more granular and timely information from market participants. Policy makers can draw on new analytic tools being deployed in the private sector to gather and analyze vast quantities of information and more closely monitor potential market risks.

Global banks: Searching for new business models

The future direction of the global financial system depends in part upon actions by policy makers that will take years to realize. Nonetheless, certain elements of the landscape are becoming clear and will require new approaches.

First is a more selective focus on geographies and new operating models abroad. New regulations and shareholder pressures call into question the benefits of pursuing a global banking model, and banks have already begun the process of exiting some geographies.

Foreign operations may need new organizational models. The “sudden stop” problems associated with foreign lending—particularly the risks of foreign “suitcase” lending—have become clear to recipient countries, and national regulators are moving to impose new capital requirements and other controls on the banks that operate within their jurisdictions. Whether banks operate through branches or subsidiaries, there will be a greater emphasis on local deposits, local funding sources, and engagement with local regulators.

In the slow-growth environment that characterizes most advanced economies, cost efficiencies take on new importance. On this front, there is wide variation in performance across banks within the same country and across countries. This challenge does not call for simple budget cutting within departments, but rather end-to-end process redesigns to streamline back-office functions and operations.

Lending may not grow faster than GDP in advanced economies, but it will always remain a core product—and some banks may benefit from a renewed emphasis on relationship-based lending. This will require sharpening fundamental credit-assessment skills that were deprioritized during the peak of the bubble. Basic lending also presents a major opportunity in emerging economies, especially for those institutions that can find viable models to tap underserved mortgage markets, other consumer lending, and SME lending.

In addition, banks may consider acting more as conduits of capital rather than leveraging their own balance sheets to provide capital. Such a shift may involve focusing on underwriting, advisory services, and other fee-based activities. The potential for large-scale expansion in global bond markets will open new opportunities. Banks can act as brokers between institutional investors and borrowers, providing credit-assessment skills and deal-sourcing capabilities. They may also be at the forefront of new platforms for capital raising and lending, such as online peer-to-peer markets.

Finally, institutions that weathered the financial crisis well (such as those in emerging economies and some regional banks in advanced markets) will find new opportunities to gain market share where the largest global banks are exiting. This shift is already playing out in Asian trade finance, as regional banks pick up business from retreating European banks.

Institutional investors: Generating returns in a two-speed world

The challenge for institutional investors in the coming years will be to navigate uncertain, volatile financial markets and find new sources of returns. Low yields and sluggish growth are the realities in mature economies, while emerging markets are expected to produce 70 percent of global GDP growth through 2025.¹⁰ Shallow, illiquid financial markets in these countries can deter foreign institutional investors, however. Private equity investing, or partnering with local banks and investors, can get around these limitations. Some pension funds are considering direct deals with foreign companies, but they will need to develop new skills and possibly new organizational models in order to do so.

In advanced economies, institutional investors will need to identify new sources of alpha, or returns that are uncorrelated with broader market movements. This could come from several sources: for instance, pursuing market-neutral strategies that hedge a variety of long and short positions, or cultivating superior information and insights into specific sectors that enable identification of underpriced companies or future growth opportunities. Building these skills will be a formidable task and require major investments.

Despite these challenges, the shifting financial landscape will present institutional investors with new opportunities. Estimates show that by 2020, nine major economies alone will need to finance \$18.8 trillion annually in long-term investment to achieve moderate levels of economic growth.¹¹ With banks in a deleveraging mode, this could be a pivotal moment for institutional investors, whose pools of patient capital could finance infrastructure and other types of investment. With the appropriate policy changes, investors such as pensions and sovereign wealth funds with long time horizons could command liquidity premiums, earning extra returns for providing longer-term funding.

¹⁰ *Winning the \$30 trillion decathlon: Going for gold in emerging markets*, McKinsey & Company, August 2012.

¹¹ *Long-term finance and economic growth*, Group of Thirty, February 2013. Also see *Infrastructure productivity: How to save \$1 trillion a year*, McKinsey Global Institute, January 2013.



After decades of strong momentum, the world is now experiencing a long, uncertain pause in financial market development and financial globalization. We could be entering a period in which banks and investors are less likely to venture beyond their home markets, or we may be witnessing the start of a new and more sustainable phase in the history of financial globalization. Policy makers will play an important role in shaping the outcome—and banks and investors need a flexible strategy for operating in a new and changing environment.

1. Global financial markets stall

After decades of surging steadily higher, the value of global financial assets¹²—including equities, government and corporate bonds, securitized assets, and loans—took a sharp tumble with the 2008 crisis. Today the global total has surpassed its pre-crisis level, but the brisk growth posted from 1990 to 2007 has ended.

With hindsight, we can now re-examine the benefits of financial market development and take a more nuanced look at the sources of growth before 2007. Our analysis reveals that much of the apparent financial deepening in the decade before the crisis in advanced economies¹³ was in fact due to leverage in the financial sector itself. Less than 30 percent of the growth in financial assets relative to GDP was from financing for the private sector. Some of the changes now under way represent a healthy correction of past excesses.

The loss of momentum, however, is not confined to the advanced economies at the heart of the crisis. Emerging economies weathered the crisis with surprising resilience, but their financial depth continues to lag far behind that of advanced economies—and they are no longer closing the gap. In most cases, financial assets in these countries have not expanded at a pace commensurate with GDP growth in recent years. Indeed, developing countries seem to be on an entirely different path, with large banking systems, smaller equity markets, and little bond issuance. Policy makers in some emerging economies have long questioned the benefits of financial-sector development—a skepticism that has now spread to advanced economies.

But continued muted growth in financial markets could jeopardize business investment and dampen economic recovery. While risks were underpriced prior to the crisis, it is now possible that excessive conservatism will set in. In emerging economies, the failure to develop capital markets may hinder business expansion and infrastructure investment, as well as crowding out SMEs in the market for bank lending. Global financial markets currently present a complex picture, with no clear forward momentum. This chapter dissects the disparate trends at work.

¹² See the appendix for more detailed definitions.

¹³ We use the terms *developed country*, *advanced economy*, and *mature economy* interchangeably throughout this report. We also use the terms *emerging market*, *emerging economy*, *developing country*, and *developing economy* interchangeably. See the technical appendix for a full list of countries in each category.

GROWTH IN GLOBAL FINANCIAL ASSETS HAS SLOWED

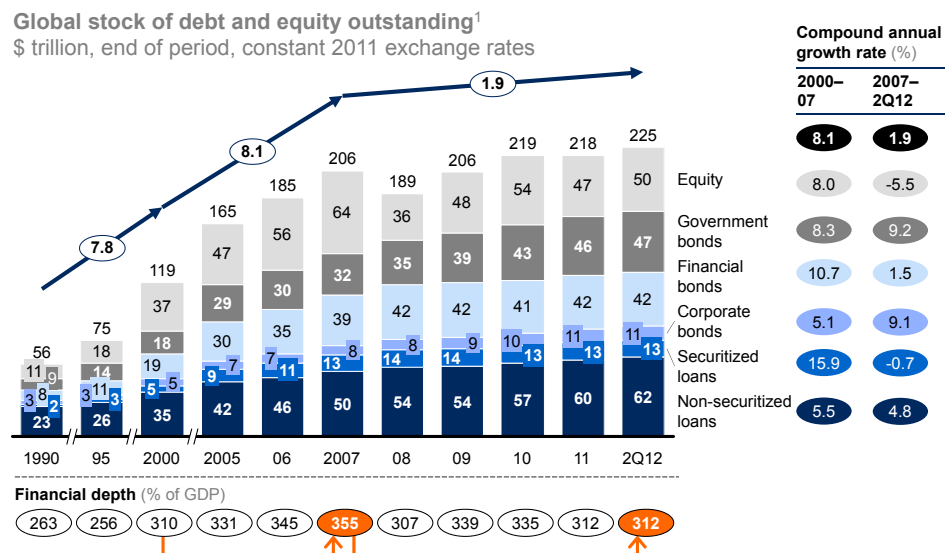
Global financial depth—that is, the value of the world’s financial assets relative to GDP—grew rapidly between 1980 and 2007, reflecting the expansion of credit and equity markets. New information technologies, online trading platforms, and increasingly sophisticated credit models enabled new forms of lending, capital raising, and trading of risk. The globalization of finance also played a role (see Box 1, “The link between financial deepening and financial globalization,” later in this chapter).

Worldwide, the value of financial assets increased from around 120 percent of GDP in 1980 to 355 percent of GDP at the peak in 2007.¹⁴ China, India, and other major emerging markets, while undergoing economic transformations of historic proportions, experienced steady but modest deepening, but the outsized gains were in advanced economies. By 2007, financial assets had grown to 417 percent of GDP in advanced economies and 199 percent of GDP in emerging markets.

But that era of growth has come to an abrupt halt. Four years after the crisis, the value of the world’s financial assets reached \$225 trillion as of the second quarter of 2012 (Exhibit 1). But global financial assets have posted an anemic 1.9 percent annual growth rate since 2007, compared with annual growth of 7.9 percent from 1990 to 2007. The recovery remains fragile and uneven, although pockets of growth exist. Corporate bond issuance is up strongly since the crisis, for instance, and lending continues to expand in emerging markets.

Exhibit 1

Global financial assets have grown to \$225 trillion, but growth has slowed since 2007



¹ Based on a sample of 183 countries.

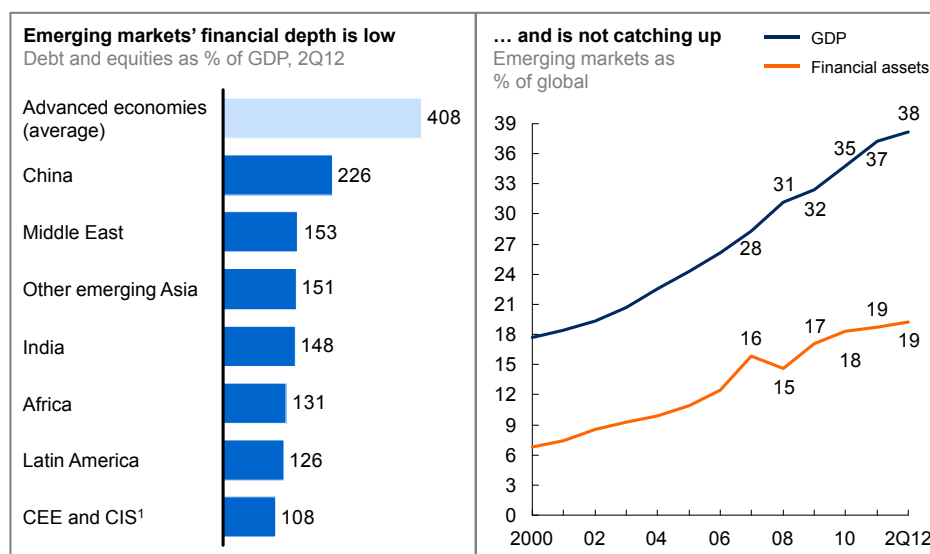
SOURCE: McKinsey Global Institute Financial Assets Database; McKinsey Global Institute analysis

14 We define global financial assets as the market capitalization of equities, outstanding values of government and corporate bonds and other debt securities, securitized assets, and loans. We do not include the notional value of derivatives or the value of physical assets such as real estate. See the appendix for more detail.

Relative to GDP, global financial assets have fallen by 43 percentage points since 2007—and by 54 percentage points if we exclude the rise in government debt. This is true not only in the deleveraging advanced economies, but also in emerging markets, where growth in financial assets has failed to keep pace with GDP growth in recent years (Exhibit 2). Progress in catching up to the level of financial depth seen in advanced nations remains elusive: bank lending continues to expand, although not notably faster than GDP in most countries, and equity markets go through large swings in valuations.

Exhibit 2

Emerging markets have low financial depth—and they are no longer closing the gap with advanced economies



¹ Central and Eastern Europe and the Commonwealth of Independent States.
SOURCE: McKinsey Global Institute Financial Assets Database; McKinsey Global Institute analysis

Does this pause matter? After all, the crisis originated in countries with some of the world’s largest, deepest, and most sophisticated financial markets—and that observation has raised fundamental questions in the minds of policy makers about the desirable role, size, and structure of the financial sector. Some skeptics see little value in the financial innovations of the past decade,¹⁵ and mainstream economists have questioned whether a dramatic expansion of the financial sector is warranted.¹⁶ Assessing the pre-crisis sources of financial deepening, and the link between private-sector credit and economic growth, provides some facts that shed light on this question.

¹⁵ Paul Volcker, for instance, famously quipped that the last useful financial innovation was the ATM (see “Paul Volcker: Think more boldly,” Future of Finance report, *The Wall Street Journal*, December 14, 2009).

¹⁶ See, for example, Jean-Louis Arcand, Enrico Berkes, and Ugo Panizza, *Too much finance?* IMF working paper number WP/12/161, June 2012; Paul Krugman, “The market mystique,” *The New York Times*, March 26, 2009; and Lorenzo Bini Smaghi, member of the Executive Board of the ECB, “Has the financial sector grown too large?” speech presented at the Nomura Seminar, April 15, 2010.

Box 1. The link between financial deepening and financial globalization

The interplay between financial deepening and cross-border capital flows remains lightly explored territory. Most of the existing academic literature studies these trends in isolation. However, we believe it is useful to consider them in tandem, as foreign banks and investors provide capital, expertise, and competition that can spur financial development, particularly in countries with low financial depth.

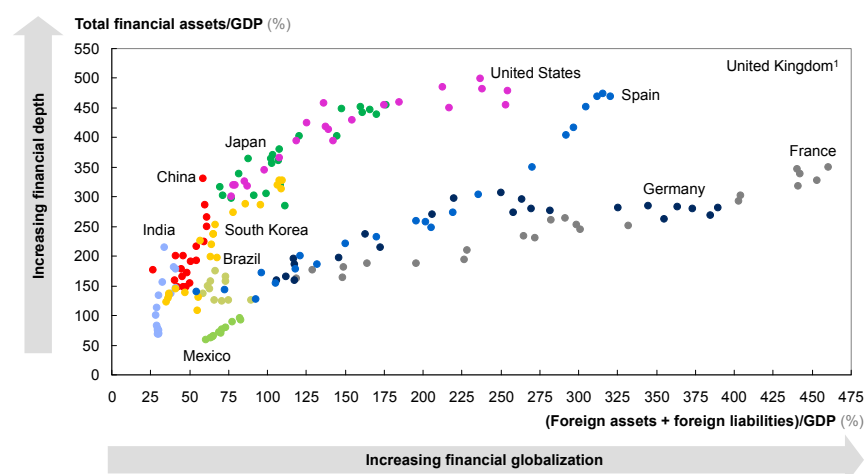
Today, 30 percent of equities and bonds worldwide are owned by foreign investors. The share varies significantly across regions: Europe is highest, with 53 percent owned by foreign investors (two-thirds of whom are from other European countries). In North America, 23 percent of bonds and equities are owned by foreign investors; in China, the corresponding figure is 9.4 percent. The presence of foreign investors enhances domestic financial markets beyond the simple metric of size. In addition to providing an infusion of capital where it is needed, they promote competition, raise the bar for corporate governance and transparency by imposing higher credit standards, and bring local companies to the international capital markets.

Looking across countries, we see a strong correlation between the openness of a financial system and its financial depth (Exhibit 3). A healthy system will have a strong institutional framework in place to absorb capital inflows, setting off a virtuous cycle in which financial globalization and financial deepening reinforce each other. But a certain level of risk goes hand-in-hand with this openness. Policy makers must weigh the risks of volatility, exchange-rate pressures, and vulnerability to sudden reversals in capital flows against the benefits of wider access to credit and enhanced competition. The right answer may vary depending on the size of the economy and the efficiency of domestic funding sources.

Exhibit 3

Financial globalization and financial deepening are related, although countries follow different paths

Relationship between financial depth and financial globalization, 1990–2011



¹ The United Kingdom has the largest financial globalization metric from the sample of countries at 949% of GDP in 2011.
SOURCE: McKinsey Global Institute Financial Assets Database; IMF Balance of Payments; McKinsey Global Institute analysis

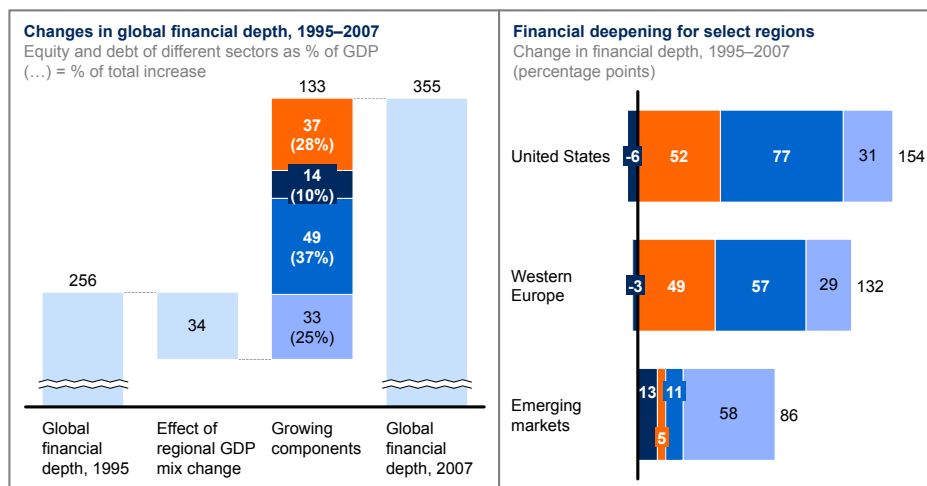
THE MAJORITY OF PRE-CRISIS FINANCIAL DEEPENING WAS NOT SUSTAINABLE

Financial deepening can come from many sources. Expanded access to credit for households and businesses, more equity market listings by companies, and bonds issued to finance infrastructure projects are examples of healthy financial deepening. But financial depth can also be inflated by such unproductive factors as equity market bubbles or unsustainable increases in debt and leverage. Overall growth in the value of financial assets does not automatically confer a positive effect on the real economy. Looking back, we can see that several unsustainable trends propelled most of the financial deepening that occurred prior to the crisis, in both advanced and developing economies. Chief among these factors was the growing leverage and size of the financial sector itself. Some of what appeared to be robust growth produced exuberance at the time but ultimately proved to be illusory.

Our database allows us to analyze separately the financing available for different sectors of the economy: households and non-financial corporations, financial institutions, and government. This analysis reveals that the financial sector accounted for 37 percent of global financial deepening prior to the crisis (Exhibit 4). Bonds and other debt securities issued by financial institutions to fund their lending activities and other asset purchases grew at an annual rate of 11 percent between 1995 to 2007, reaching \$39 trillion by 2007—roughly five times the total bonds issued by non-financial companies and larger even than the sovereign bond market in 2007.

Exhibit 4

Most of the increase in financial depth prior to the crisis was due to financial system leverage and equity valuations



NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute Financial Assets Database; McKinsey Global Institute analysis

Rising equity market valuations accounted for 25 percent of the increase in global financial depth between 1995 and 2007.¹⁷ While part of this may have reflected companies' improved earnings prospects, inflated investor expectations as well

17 We measure equity market valuations using price-to-book ratios.

as falling interest rates were also at play as valuations exceeded long-term norms. These gains were erased in the crisis, although equity markets have since climbed back.¹⁸ Yet another factor adding to financial deepening during this period was a steady rise in government debt around the globe. Government bonds grew at annual rates of 7 percent over the period (to \$32 trillion). This growth can be sustainable—but only up to a certain point.

Financing for households and non-financial corporations accounted for just over one-fourth of the rise in global financial depth between 1995 and 2007. This is an astonishingly small share, given that this is the fundamental purpose of finance. It is even more surprising given that this sector's share includes large increases in the volume of mortgage lending during the housing bubble in several large economies, such as the United States, the United Kingdom, Canada, Spain, and Australia, to mention a few.

A CORRECTION IS NOW UNDER WAY—BUT IT MAY OVERSHOOT

Given the magnitude of the global credit bubble, some of the decline in global financial depth reflects a necessary correction and deleveraging. The picture across asset classes and regions is mixed.

Global equity market capitalization, for instance, rose over the decade up to the crisis but has since declined sharply. Despite the recovery of some major stock market indexes at the time we published this report, global equity market capitalization relative to GDP remains 42 percentage points below its 2007 level. In contrast, government bonds have grown significantly across advanced economies in the post-crisis period (Exhibit 5). There has been a \$15.4 trillion global increase in government debt securities since 2007.¹⁹ While government debt may fund vital physical and social infrastructure (and create jobs), the current trend in government debt threatens future economic growth in many countries. A significant body of research reveals that government debt in excess of certain thresholds slows GDP growth and significantly increases the risk of a sovereign default.²⁰

Another large portion of the decline in financial depth (22 percentage points) is due to the growing contribution of emerging markets to global GDP. These nations have much shallower financial markets than advanced economies, and thus their increasing GDP weight lowers global financial depth. This is not just a technical point—it is a reflection of the fact that financial market development has not kept pace with economic development in much of the world. Financial depth in China, for example, is just 226 percent of GDP, only half the level seen in the United States or Japan and far behind Western Europe and other advanced countries as well (Exhibit 6). Very few developing countries have robust corporate

18 As of early 2013, some major indexes (most notably in the United States) were nearing or had surpassed their pre-crisis peaks, but equity market capitalization relative to GDP is still markedly lower than in 2007 globally and in most countries.

19 This figure represents the increase in government bonds outstanding. Total government debt (which also encompasses loans) has increased by about \$23 trillion since 2007, according to the IMF.

20 See Carmen Reinhart and Kenneth Rogoff, *This time is different: Eight centuries of financial folly*, Princeton University Press, 2011; and Stephen G. Cecchetti, Madhusudan S. Mohanty, and Fabrizio Zampolli, *The real effects of debt*, Bank for International Settlements working paper number 352, September 2011.

Deleveraging of the financial sector has contributed only a negligible amount to the overall decline in global financial depth, but there are sharp regional differences in how this trend is playing out. The United States has reduced outstanding financial-sector debt securities by \$1.5 trillion from 2007 to the second quarter of 2012, reflecting a decline in asset-backed securities, a shift toward using deposits to fund bank balance sheets, and the collapse of several large broker-dealers funded mainly through debt.²² In contrast, financial-sector debt in Europe has increased by \$2.6 trillion over the same period. This partly reflects a shift from interbank borrowing and wholesale funding to longer-term bonds to fund bank activities. It may also reflect less pressure to restructure operations and funding sources, and less emphasis on raising more deposits.

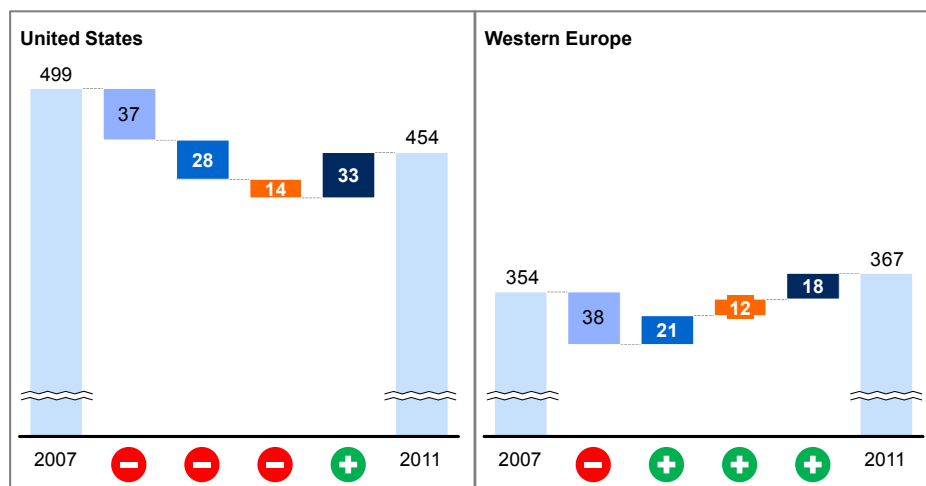
The provision of debt and equity financing to households and corporations since the crisis shows significant regional differences. Europe, despite its ongoing euro crisis, has seen financing to all parts of the economy expand since 2007. This reflects an increase in financial institution bonds, noted above, but also growth in loans to households and corporations from domestic banks. This trend is seen in most European countries, although some—notably the United Kingdom—have seen little growth in household and corporate funding. In sharp contrast, financing has declined to all sectors in the United States except the government (Exhibit 7).

Exhibit 7

Since the crisis, financing to all sectors has grown in Europe—a trend not seen in the United States

Changes in financial depth
Equity and debt as % of GDP

■ Equity valuation
■ Financial sector
■ Households and corporations
■ Government



NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute Financial Assets Database; McKinsey Global Institute analysis

²² This data is from the US Federal Reserve Bank and the European Central Bank. For more on the pace of deleveraging in different countries, see *Debt and deleveraging: Uneven progress on the path to growth*, McKinsey Global Institute, January 2012.

CONTINUED FINANCING CONSTRAINTS COULD DAMPEN ECONOMIC GROWTH

A continued stalling of financing for households and corporations as well as excessive growth in government debt beyond sustainable levels could have negative implications for global recovery. A large body of academic literature has examined the relationship between financing and economic growth, with most empirical studies finding a positive correlation.²³ More recent research has found that financial development contributes to growth, but only up to a point.²⁴ As noted above, empirical research also reveals that government debt above a certain threshold (such as 90 percent of GDP) has a negative impact on economic growth.

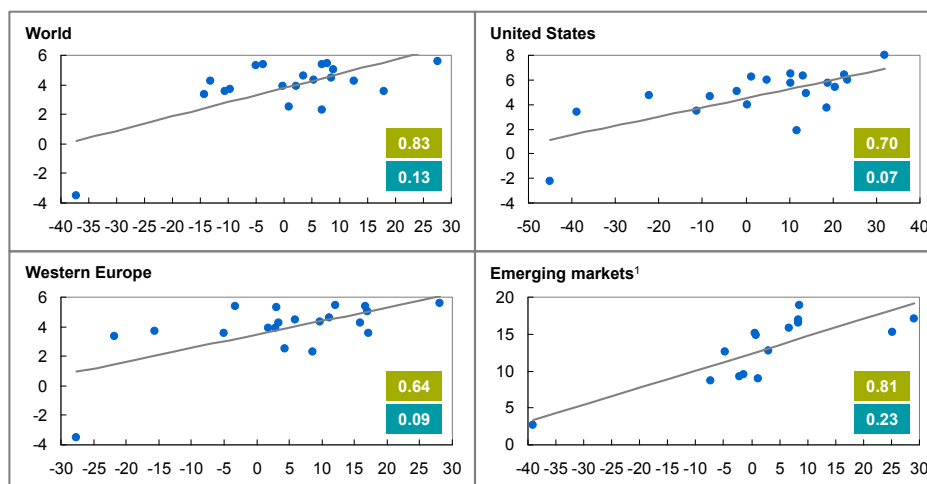
Our database of global financial assets enables us to examine the link between finance and growth and offer new evidence. In contrast to other studies, our dataset allows us to look at debt and equity in different sectors of the economy and to define private-sector financing more precisely. (See the appendix for more detail.)

We start by looking at a simple correlation between debt and equity financing for households and non-financial corporations and GDP growth in the following year. We find a strong positive correlation for both mature economies and developing countries, as shown in Exhibit 8.

Exhibit 8

The decline in financial depth matters: GDP growth is correlated with private-sector financing

X axis: Household and corporate debt and equity as a share of GDP annual change (t-1)
Y axis: Nominal GDP growth (t) (%)



¹ Emerging markets excluding China shows correlation of 0.66 and a slope of 0.20.
NOTE: Not to scale.

SOURCE: McKinsey Global Institute Financial Assets Database; McKinsey Global Institute analysis

²³ See, for example, Ross Levine, "Finance and growth: Theory and evidence," in *Handbook of economic growth*, Philippe Aghion and Steven Durlauf, eds., first edition, volume 1, Elsevier, 2005; Thorsten Beck, Asli Demirgüç-Kunt, and Ross Levine, *Financial institutions and markets across countries and over time: Data and analysis*, World Bank policy research working paper number 4943, May 2009; and Thorsten Beck et al., *Financial structure and economic development: Firm, industry, and country evidence*, World Bank policy research working paper number 2423, June 2000.

²⁴ Stephen G. Cecchetti and Enisse Kharroubi, *Reassessing the impact of finance on growth*, Bank for International Settlements working paper number 381, July 2012.

In the United States, for instance, our analysis suggests that every increase of 10 percentage points in financing for households and corporations relative to GDP is correlated with a 0.7 percent increase in GDP growth in the following year. In emerging markets, the correlation of financing and growth is higher, at 2.3 percent of GDP growth for every 10 percentage point increase in household and corporate financing. This reflects the lower level of financing in these economies and the fact that they have very large financing needs associated with industrialization and urbanization.

The positive relationship between private-sector financing and GDP growth also holds if we use a multivariate regression on panel data with fixed effects to control for other factors that contribute to economic growth. We test the relationship between the change in financing (debt and equity) to non-financial corporations and households in one period and real GDP growth in the subsequent year. We control for other factors that may influence GDP growth, including population growth, human capital development, political and macroeconomic stability, and openness to trade, though clearly other factors such as expectations for future growth could also drive correlation. In these regressions, we also allow for the possibility that financing has a positive correlation to economic growth, but only up to a certain point. We find that financing has a significant positive correlation to real GDP growth in all model specifications. We also find that the effect is nonlinear, with excessive levels of financing hindering growth, although not until very high levels. The results are shown in the appendix.

In addition, we find a positive but weaker correlation between GDP growth and change in debt issued by the financial sector in the previous period. This reflects the role of the financial sector in providing credit for investments that contribute to growth. Consistent with other research, our analysis finds a negative correlation between rising government debt and GDP growth.

Given the results of this analysis, we therefore conclude that while correlation does not always imply causation, slow growth in financing to the household and corporate sector could risk dampening economic growth. The impact may be due to inhibiting drivers such as homeownership, household consumption, and business spending on commercial buildings, plants, machinery, equipment, and software. This is a particularly acute concern in emerging economies, where underdeveloped financial systems leave borrowers with limited options, especially for long-term financing, and exclude many people from even basic banking services.

□ □ □

The bursting of a worldwide credit bubble has removed some of the excesses that drove rapid financial deepening before the crisis, but in its wake, the new normal has yet to be clearly established. For now, growth in global financial assets remains a mixed picture, especially in mature economies, and markets lack a clear direction forward. It remains to be seen whether the world can resume financial deepening and manage to do so within a more stable framework and at a more measured pace. Policy changes discussed later in this report could move the world in that direction.

2. Cross-border capital flows decline

In most minds, the word *globalization* evokes international trade rather than finance. But in our interconnected economy, capital moves fluidly across national borders—and in fact, capital flows have grown even more rapidly than the volume of global exports over the past three decades.

Cross-border capital flows—including lending, foreign direct investment (FDI), and purchases of equities and bonds²⁵—are a key metric that reflects the degree of integration in the global financial system. These flows link together national financial markets and allow borrowers and savers from different countries to connect. In recent decades, financial globalization took a quantum leap forward as cross-border capital flows grew faster than global GDP, rising from \$0.5 trillion in 1980 to a peak of \$11.8 trillion in 2007.

But these flows are now more than 60 percent below their former peak (Exhibit 9). This sharp drop has cast uncertainty over the future evolution of financial globalization. Understanding the drivers of growth—and decline—in cross-border capital flows is essential. While some of these flows connect lenders and investors with real-economy borrowers, interbank lending has accounted for a significant share. We find that most of the recent decline can be attributed to Europe and to a pullback in cross-border lending (Exhibit 10). However, all advanced economies have seen a significant reduction in capital inflows and outflows (Exhibit 11). By contrast, developing countries and foreign direct investment have held steadier.

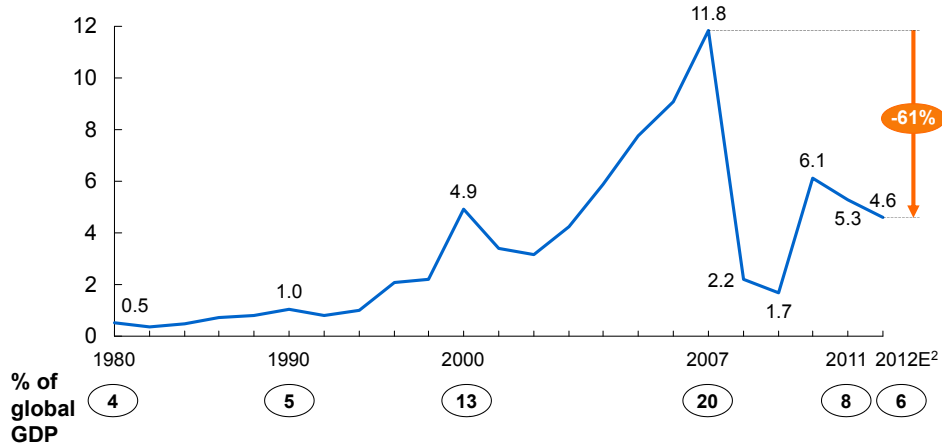
Global capital flows are unlikely to regain the highs of 2007 in the near term, but beyond that, the future remains an open question. History shows that financial globalization is not a linear process (see Box 2, “The first age of financial globalization: 1860–1915”). We could be entering a period in which banks and investors are less likely to venture beyond their home markets, creating a more balkanized financial system with constrained access to credit and higher costs of borrowing in some countries. Savers would find fewer opportunities to diversify globally. Or—given the right policy actions—we may simply be witnessing the start of a new phase in the ongoing development of financial globalization.

²⁵ See the appendix for more detailed definitions. Because of data restrictions, the sections of this chapter that discuss cross-border bank claims and bilateral investment refer to changes in the stock of foreign assets rather than to flows. These distinctions are also discussed in greater detail in the appendix.

Exhibit 9

Cross-border capital flows fell sharply in 2008 and today remain more than 60 percent below their pre-crisis peak

Global cross-border capital flows¹
\$ trillion, constant 2011 exchange rates



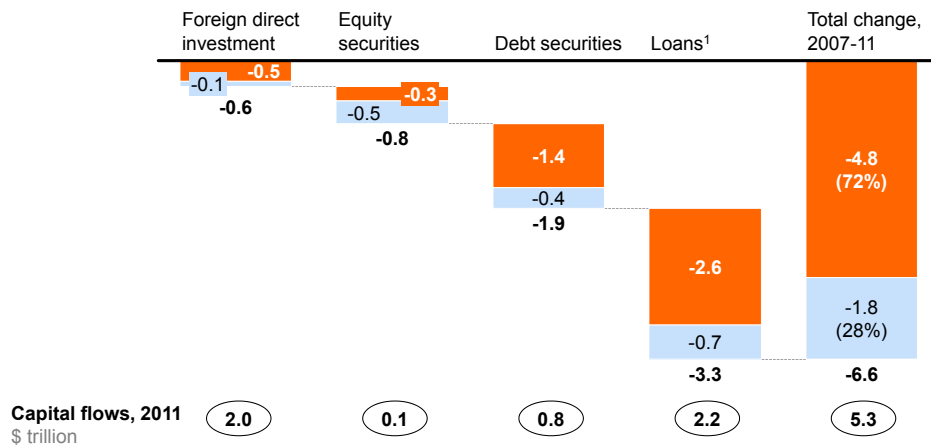
1 Includes foreign direct investment, purchases of foreign bonds and equities, and cross-border loans and deposits.
2 Estimated based on data through the latest available quarter (Q3 for major developed economies, Q2 for other advanced and emerging economies). For countries without quarterly data, we use trends from the Institute of International Finance.
SOURCE: International Monetary Fund (IMF) Balance of Payments; Institute of International Finance (IIF); McKinsey Global Institute analysis

Exhibit 10

All types of capital flows have declined since 2007, and cross-border lending accounts for half the total drop

Change in total cross-border capital flows, 2007–11
\$ trillion, constant 2011 exchange rates

Western Europe and United Kingdom
Rest of the world



1 Includes primarily loans, currency and deposits, as well as a small share of trade credit. Excludes operations of foreign affiliates.

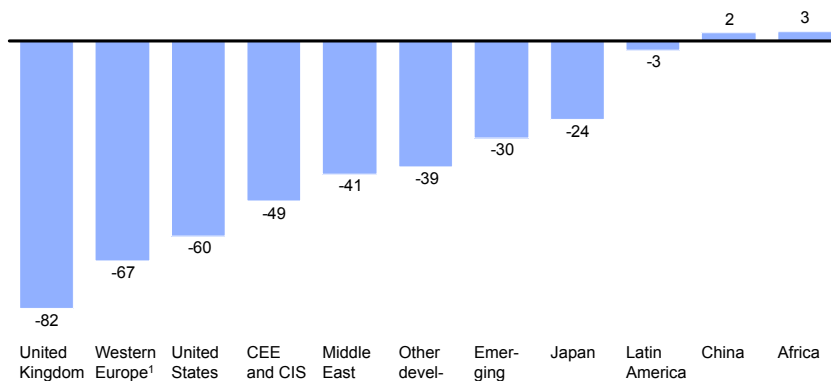
NOTE: Numbers may not sum due to rounding.

SOURCE: IMF Balance of Payments; McKinsey Global Institute analysis

Exhibit 11

Cross-border capital flows have declined significantly in most regions since 2007

Change in total capital flows (inflows + outflows by region), 2007–11
 %



Total capital flows (\$ trillion)

	United Kingdom	Western Europe ¹	United States	CEE and CIS	Middle East	Other developed	Emerging Asia ²	Japan	Latin America	China	Africa
2007	3.3	9.9	3.8	1.0	0.5	2.1	0.4	1.1	0.6	1.1	0.2
2011	0.6	3.2	1.5	0.5	0.3	1.3	0.3	0.9	0.6	1.1	0.2

1 The United Kingdom is removed from Western Europe in this chart to avoid double counting.

2 Asia excluding China and developed Asian countries (Hong Kong, Japan, Singapore, South Korea, and Taiwan).

SOURCE: IMF Balance of Payments; McKinsey Global Institute analysis

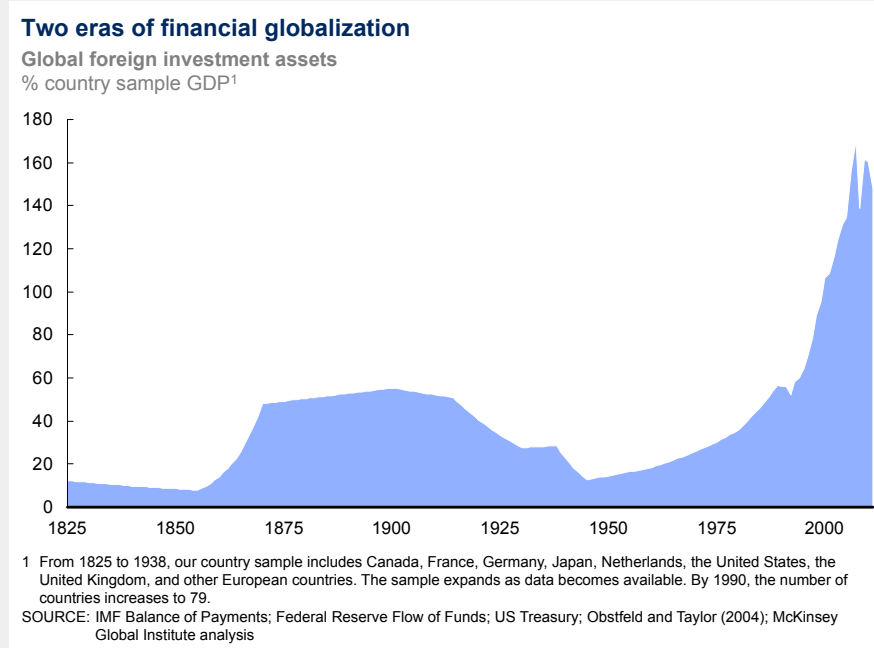
In this chapter we examine the trends in financial globalization using a variety of metrics: cross-border capital flows, the stocks of foreign investment assets and liabilities of countries (which represent the cumulative sum of capital flows), and the current account balances of countries (which reflect a nation’s capital inflows minus outflows).

One bit of good news today is that global current account imbalances—or the sum of surpluses and deficits in different countries—have declined some 30 percent from their peak when measured relative to global GDP. Although these imbalances did not directly cause the financial crisis (as many observers feared they would), the imbalances did contribute to growing indebtedness and credit bubbles in some countries. Smaller imbalances in the future would reduce one source of risk and volatility in the global financial system.

Box 2. The first age of financial globalization: 1860–1915

The rise of cross-border investing in recent decades is not the first time the world has seen a significant burst of financial globalization. Indeed, the Second Industrial Revolution coincided with a new era of capital mobility that extended roughly from 1860 to 1915. Foreign investment assets rose to 55 percent of GDP in the major European economies (Exhibit 12).

Exhibit 12



This wave of financial globalization reflected European investment in colonies and former colonies.¹ As the British Empire reached its peak, Great Britain alone accounted for half of the foreign assets of the period. These investments helped fund the industrialization and urbanization that transformed recipient nations such as Canada, Australia, and Argentina.²

But the ending of the first age of financial globalization provides a cautionary tale. Two world wars and a global depression not only brought this period of integration to a halt but also ushered in six decades of tightly restricted capital flows and pegged foreign exchange rates. Foreign investment assets as a share of GDP in the major economies did not regain their earlier peak until 1990. Today it is unclear whether financial globalization will rebound or whether we will enter a similar period of more insular national financial markets.

1 Maurice Obstfeld and Alan M. Taylor, *Global capital markets: Integration, crisis, and growth*, Cambridge University Press, 2004.

2 Charles W. Calomiris, *A globalist manifesto for public policy*, Institute of Economic Affairs, 2002.

EUROPEAN FINANCIAL INTEGRATION HAS REVERSED

With the creation of a monetary union and a common currency, Europe has been in the vanguard of financial globalization. The nations of Western Europe accounted for 56 percent of the growth in global capital flows from 1980 through 2007—and 72 percent of the collapse since then (Exhibit 13).

Exhibit 13

Western Europe accounted for most of the recent rise and collapse of cross-border capital flows

● Total global change in capital flows (\$ trillion)

Change in global capital inflows

Composition by asset type and region

		% of total increase, 2000–07					% of total decline, 2007–11					
		Loans ¹	Bonds	Equity	FDI	%	Loans ¹	Bonds	Equity	FDI	%	
Western Europe	Eurozone	19	5	3	3	31	-19	-14	-4	-2	-40	
	United Kingdom	11	4	-3	1	13	-13	-5	-1	-3	-21	
	Other W. Europe	4	2	0	0	5	-7	-2	0	-2	-11	
Other developed	United States	6	9	1	0	17	-4	-9	-4	-1	-18	
	Other developed	9	5	0	1	15	-4	1	-2	-1	-6	
Emerging	China	1	0	0	2	4	1	0	0	1	2	
	Other emerging	8	1	1	6	16	-5	1	-2	0	-6	
		%	58	26	3	13	+6.9	-50	-28	-13	-9	-6.6

1 Includes primarily loans, currency, and deposits, as well as a small share of trade credit. Excludes operations of foreign affiliates.

NOTE: Numbers may not sum due to rounding.

SOURCE: IMF Balance of Payments; McKinsey Global Institute analysis

European banks were at the forefront of this trend. They expanded both within Europe and beyond through interbank lending, direct lending to foreign borrowers, and purchases of foreign bonds and equities. The total value of European banks' outstanding cross-border claims grew from \$8.1 trillion in 2000 to \$20.7 trillion in 2007; claims on other European borrowers accounted for \$7.1 trillion of this increase. We estimate that more than 40 percent was from interbank lending, in a sign of the increasingly interconnected nature of the global banking system. The cross-border reach of European banks dwarfed that of banks in other parts of the world. By 2007, European banks accounted for 74 percent of all cross-border bank claims originated from developed economies.²⁶

At the same time, European companies and investors also expanded across the continent and beyond. Annual foreign direct investment by European investors rose from \$1.1 trillion in 2000 to \$1.6 trillion in 2007, and European investor purchases of foreign equities and bonds rose from \$1.2 trillion to \$1.4 trillion over the same period. A large share of this expansion came from increased intra-European investment; 60 percent of the rise in foreign assets posted between 2000 and 2007 can be attributed to intra-European purchases.

26 This is based on the set of 20 developed economies reporting to the Bank for International Settlements. Notable exclusions are South Korea and Hong Kong.

But today it appears that Europe's financial integration proceeded faster than the development of an institutional framework to monitor and address the impact of such flows. As capital moved seamlessly across borders, interest rates converged across the Eurozone. For countries in the periphery, this meant a substantial decline in borrowing costs that unleashed an unsustainable bubble.²⁷ In countries like Spain and Ireland, which had underdeveloped residential and commercial real estate sectors, lower interest rates fueled a lending boom and contributed to real estate bubbles. In Greece, the decline in interest rates enabled public-sector spending and mounting government debts. The result—plain to see far in advance of the current euro crisis—was very large and unsustainable current account deficits in those countries funded by foreign capital inflows.

In the aftermath, Europe's financial integration has gone into reverse. Eurozone banks have reduced cross-border lending and other claims by \$3.7 trillion since the fourth quarter of 2007, with \$2.8 trillion of that reduction coming from intra-European claims (Exhibit 14). Our calculations suggest that half of the decline in foreign claims came from a drop in cross-border interbank lending. The rest is attributed to sales of foreign corporate bonds, government bonds, and equities.

Exhibit 14

Since 2007, Eurozone banks have reduced foreign claims by \$3.7 trillion, \$2.8 trillion of which was intra-European

Consolidated foreign claims of Eurozone reporting banks
(includes loans and other foreign financial assets)¹

By counterparty location, constant 2011 exchange rates

Eurozone bank claims on:	Change 4Q99–4Q07		Change 4Q07–2Q12	
	\$ billion	Compound annual growth rate (%)	\$ billion	Compound annual growth rate (%)
GIIPS ²	1,732	17	-1,176	-14
Other Eurozone	2,033	12	-665	-5
United Kingdom	1,609	16	-771	-9
Other Western Europe	291	11	-140	-7
Total Western Europe	5,665	14	-2,752	-8
United States	1,382	13	-781	-9
Other developed	509	6	-438	-9
Developing countries	1,182	13	240	3
Total	8,737	13	-3,732	-7

1 Includes banks from Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, and Spain.

2 GIIPS comprises Greece, Ireland, Italy, Portugal, and Spain.

SOURCE: Bank for International Settlements; McKinsey Global Institute analysis

The retrenchment of European banks abroad has been matched by an increase in domestic activity. Banks that received public rescues have faced an expectation to increase home-market lending. As a result, domestic lending and purchases of domestic bonds in the Eurozone have increased by \$3.8 trillion since the fourth quarter of 2007, more than offsetting the contraction in banks' foreign assets

27 From 1995 to 2007, ten-year bond yields decreased by 7.5 percentage points in Spain, 7.3 percentage points in Portugal, 7.5 percentage points in Italy, and 14.5 percentage points in Greece.

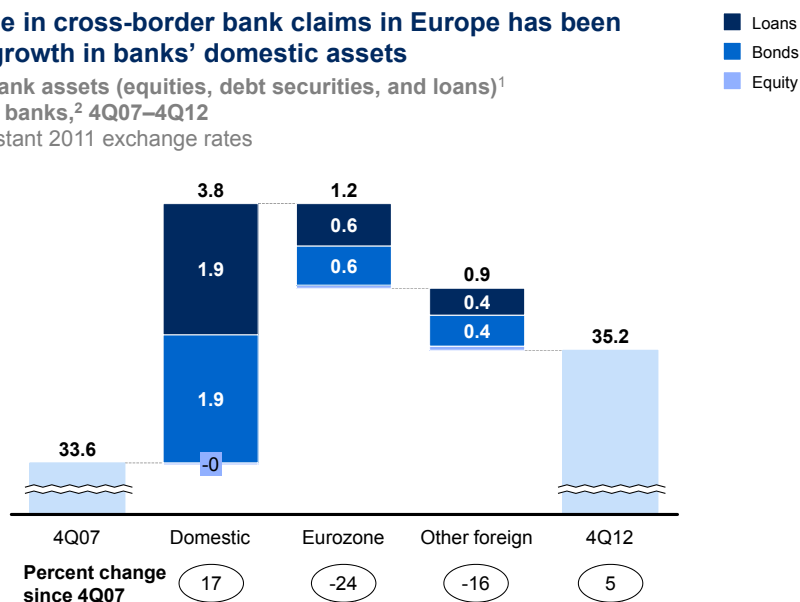
(Exhibit 15).²⁸ Overall, their balance sheets have grown since 2007. This explains the somewhat surprising finding in Chapter 1 that financial assets relative to GDP have grown since 2007 in most European countries, despite the lingering euro turmoil.

Exhibit 15

The decline in cross-border bank claims in Europe has been offset by growth in banks' domestic assets

Change in bank assets (equities, debt securities, and loans)¹ of Eurozone banks,² 4Q07–4Q12

\$ trillion, constant 2011 exchange rates



1 Not all parts of bank balance sheet included in totals. Claims by foreign subsidiary banks are also excluded in this chart.
2 Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, and Spain.
SOURCE: European Central Bank; McKinsey Global Institute analysis

Other types of cross-border capital flows into European nations have declined sharply since 2007. FDI inflows and foreign purchases of equity and bonds declined by 74 percent, from an annual volume of almost \$3 trillion in 2007 to \$780 billion in 2011. Early estimates indicate that FDI flows into Europe continue to decline, tumbling some 35 percent in 2012 over the previous year as the euro crisis has dragged on. The seamless flow of capital across national borders has slowed to a trickle. Flows from the European Central Bank and the national central banks of the Eurozone member states now account for more than 50 percent of capital flows in the region (Exhibit 16).

The GIIPS countries at the heart of the euro crisis—Greece, Ireland, Italy, Portugal, and Spain—have been hit particularly hard as cross-border financing has dried up. Private creditors have retreated; over the past three years, foreign investors have withdrawn on net more than \$900 billion from these countries. Currently, official support from the European Central Bank is the main form of capital flowing into these countries (Exhibit 17), although there is some evidence that private capital flows to the GIIPS picked up in the final months of 2012.

28 According to data from the European Central Bank, the balance sheet assets of banks in 11 Eurozone nations have grown from \$33.6 trillion at the end of 2007 to \$35.2 trillion by the second quarter of 2012. The growth is seen across most Eurozone countries, including France, Italy, the Netherlands, and Spain. Germany is a notable exception.

Exhibit 16

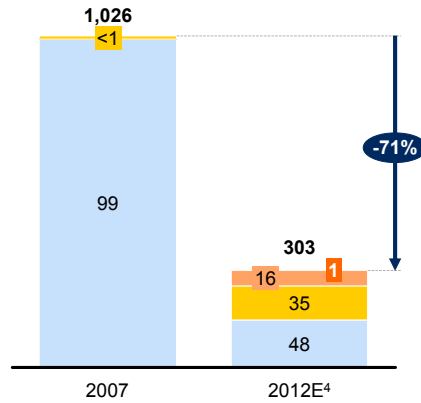
Central bank flows now account for 50 percent of capital flows in the Eurozone

Composition of Eurozone-17 average quarterly cross-border capital inflows

%; \$ billion, constant 2011 exchange rates

Official flows to the GIIPS¹

- ECB bond purchases
- EFSF/ESM²
- Intra-Eurosystem lending³
- Private and other flows



- 1 GIIPS comprises Greece, Ireland, Italy, Portugal, and Spain.
- 2 European Financial Stability Facility/ European Stability Mechanism.
- 3 Measured as changes in TARGET2 liabilities of GIIPS central banks, less the portion associated with EFSF/ESM.
- 4 Calculated based on data up to 3Q12.

SOURCE: Eurostat; individual central banks' balance sheets; McKinsey Global Institute analysis

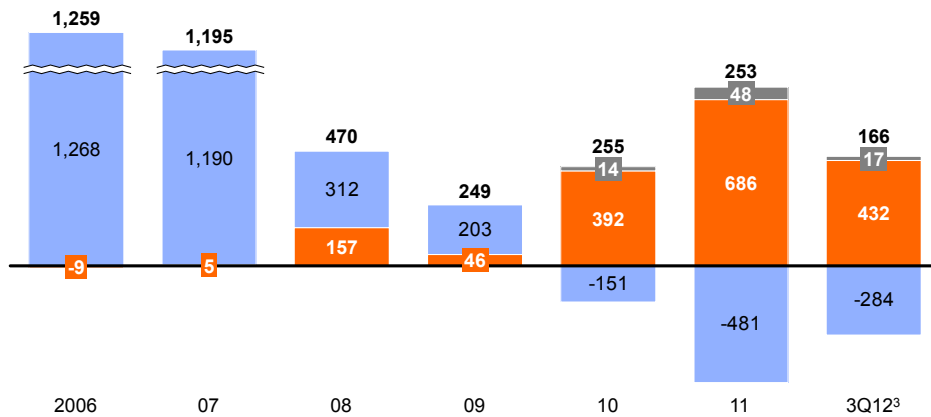
Exhibit 17

In the GIIPS, central bank flows are the main source of capital, as private creditors and investors have withdrawn more than \$900 billion

GIIPS² capital inflows

\$ billion, constant 2011 exchange rate

- IMF
- Private flows
- Eurosystem flows¹



- 1 Includes inflows via EFSF/ESM, bond purchase programs, and the TARGET2 system.
 - 2 GIIPS comprises Greece, Ireland, Italy, Portugal, and Spain.
 - 3 Non-annualized total inflows up to 3Q12.
- SOURCE: ECB; individual central bank balance sheets; Eurostat; press releases; McKinsey Global Institute analysis

Beyond the immediate imperatives of navigating the crisis, the Eurozone—and the EU more broadly—faces a more fundamental question: is the pursuit of full financial integration still a primary goal, or will individual nations turn inward? While the current retrenchment seems prudent in the face of the euro crisis, it has the potential over time to raise the cost of capital, limit competition, and concentrate risks within countries.

GLOBAL BANKING IS IN FLUX

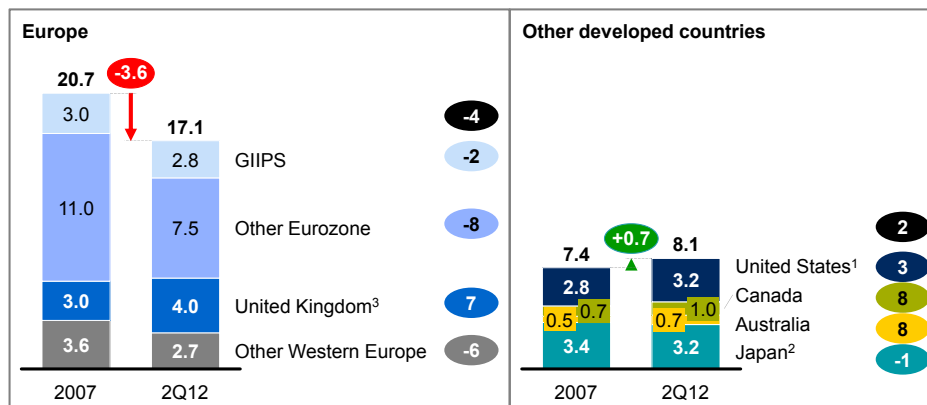
Outside of the Eurozone, which has seen a sharp reduction in cross-border bank claims, the picture of global bank retrenchment is more mixed. Banks in the United Kingdom have actually increased foreign assets,²⁹ while those in other European countries have seen a decline (Exhibit 18). Banks in the United States, Canada, and Australia have all increased their cross-border assets—but their expansion is not substantial enough to fill the gap left by retreating European banks. In aggregate, total cross-border bank claims have fallen by \$2.9 trillion since 2007.

Exhibit 18

US and other developed-country banks have expanded foreign assets—but not enough to fill the gap left by European banks

● Compound annual growth rate, 2007–2Q12 (%)

Advanced-economy banks' cross-border claims, by nationality of bank
\$ trillion, constant 2011 exchange rates



1 In 2009, US banks added a large amount of off-balance assets bank on their balance sheets. To ensure comparability between 2007 and 2Q12 figures, the data in the exhibit assumes these assets were on bank balance sheets in both periods.

2 In nominal \$, Japanese bank foreign claims increased by \$0.8 trillion between 2007 and 2Q12.

3 In nominal \$, UK bank foreign claims increased by \$0.3 trillion between 2007 and 2Q12.

SOURCE: Bank for International Settlements; McKinsey Global Institute analysis



























29 The increase in the cross-border assets of UK banks results from two effects: first, growth in the assets of the foreign subsidiaries of UK banks, such as Standard Chartered, and second, use of a constant exchange rate across the period.

With new regulations on capital and liquidity and pressures from shareholders and regulators to reduce risk, banks are winnowing down the geographies and business lines in which they operate. Commercial banks have sold more than \$722 billion in assets and operations since the start of 2007; foreign operations make up almost half of this total (Exhibit 19). European banks account for more than half of these asset sales. For instance, since 2009 HSBC has undertaken at least 70 divestitures, worth more than \$25 billion, in 32 countries. Crédit Agricole has divested at least 27 operations across 15 countries. Of course, some banks have also purchased assets that others are selling. Since 2009 Scotiabank has made ten acquisitions in Latin America, including the Brazilian operations of Commerzbank and the Chilean operations of RBS. On net, European banks have been net sellers of assets, while banks from the United States and other advanced economies have been buyers of assets.

Exhibit 19

Global banks have divested at least \$722 billion of assets since 2007, with more than half coming from European banks

Divestitures, January 2007–December 2012¹

Nationality	Examples	Cumulative deal value \$ billion (number of deals)	Cross-border % of cumulative deal value
 United Kingdom	 RBS  HSBC  Standard Chartered  BARCLAYS	161.8 (308)	55
 France	 CRÉDIT AGRICOLE  BNP PARIBAS  SOCIÉTÉ GÉNÉRALE	79.9 (208)	62
 Spain	 BBVA  Santander	77.3 (215)	45
 Italy	 INTESA  SANPAOLO  UniCredit Bank	43.1 (234)	14
 Germany	 COMMERZBANK  Deutsche Bank	24.4 (222)	52
 Belgium	 KBC  DEXIA	21.0 (44)	63
Total Western Europe²		434.5 (1,499)	51
 United States	 JPMorganChase  citi  Bank of America	167.6 (655)	42
Rest of world		120.0 (1,296)	26
Total		722.1 (3,450)	45

¹ Includes retail and commercial banks. Deal value of some divestitures not reported.

² We found data on 23 divestiture deals of Swiss banks. The six deals with values total less than \$1 billion.

SOURCE: Dealogic; McKinsey Global Institute analysis

Banks remaining active in foreign markets are encountering a changed regulatory landscape. During the crisis, many countries found their own taxpayers bailing out banks that failed due to foreign operations, or insuring depositors from failed foreign institutions. As national regulators move to contain these risks, their actions could slow the bank-induced share of cross-border capital flows (see Box 3, “Shifting models of foreign lending”).

Box 3. Shifting models of foreign lending

Cross-border banking grew rapidly in the years preceding the financial crisis, with annual flows of lending and deposits rising from \$1.6 trillion in 2000 to \$5.6 trillion in 2007. This rise in activity was accompanied by different methods for conducting such activities—and vast differences in how they were regulated.

In general, there are three forms of cross-border banking. At one end of the spectrum is the **subsidiary** model, in which banks set up a separate legal entity in the host country. Such subsidiaries have their own balance sheets and need to be separately capitalized for the activities they are performing. **Branch lending** is done via a local office established in the recipient country, while **“suitcase” lending** is conducted from a financial institution with little or no physical presence in the country. The branch and suitcase lending models allow foreign institutions to use their balance sheets in one nation to lend to corporations or households in another.

The regulatory approach to each of these forms of cross-border lending varies across countries. Many national regulators do not regulate lending per se but require only a banking license for taking deposits or other activities. Some require a banking license for consumer lending, and a few also regulate wholesale cross-border lending. An analysis by the global law firm Clifford Chance finds that the majority of countries in a 43-country sample had no explicit regulations on foreign entities for cross-border suitcase lending to domestic corporations. This enabled rapid growth in cross-border lending, since suitcase lending does not require physical infrastructure in the borrower jurisdiction. In most countries, regulatory barriers for the establishment of branches were quite low for reputable banks prior to the financial crisis. The European Union even went one step further: its “passporting” rules allow its banks to establish branches and conduct all banking activities, including taking deposits, in other member states. By contrast, countries such as Saudi Arabia have barred most types of foreign lending and grant only restricted banking licenses to foreign banks.

The rules regarding suitcase lending have not changed much since the financial crisis. Most markets allow it because the lender of last resort is clear: it is the home country. But some countries have imposed restrictions with the goal of avoiding “sudden stops” in which cross-border lending by foreign banks dries up in times of stress and accelerates a crisis.

However, regulators across the globe are tightening the rules for foreign activities conducted through branches and subsidiaries. These moves include concentration limits, higher capital and liquidity requirements, and stricter regulatory oversight with less reliance on home supervisors. The recent trend of “subsidiarization” has seen many regulators increasingly requiring foreign banks to access their markets only through subsidiaries. In the United Kingdom, for example, there have been 22 net closings of branches since 2007, with two net additional subsidiaries. Several foreign banks in the United Kingdom, including banks from China, Cyprus, and Ireland, recently converted their operations from branches to subsidiaries. The recent US Federal Reserve Foreign Banking Organization proposals,¹ if implemented, would require banks to create subsidiaries in certain circumstances, and would require branches of overseas banks to maintain assets in the United States.

1 See details from the Federal Reserve at <http://www.federalreserve.gov/newsevents/press/bcreg/20121214a.htm>.

Exerting tighter regulatory control over foreign banks entails a trade-off. Subsidiaries allow host regulators to apply their own standards to foreign banks, minimizing the risk of capital flight and the chance of local taxpayers bearing the cost of a bailout. However, because subsidiaries need to be capitalized and funded separately, this leads to “trapped pools of capital and liquidity.” This reduces the overall banking group’s lending capacity and limits the ability to use deposit overhangs in one country for lending in another. It also raises the cost to banks of operating in a country and may erode economies of scale. As a result, foreign banks may decide not to enter some smaller and more restrictive markets at all, thus limiting competition and also potentially depriving local borrowers from tapping international markets. The impact is already visible. Over the past four years, cross-border lending through branches in Europe has declined two times more than foreign lending through subsidiaries.

In light of these and other new regulatory trends, the benefits of global expansion for large banks seem to be waning. While a foreign presence may continue to benefit banks and host countries alike, it will be undertaken on a more selective basis going forward. This will require banks to adopt new strategies and organizational structures, and it will open the door for new intermediaries to gain share.

DEVELOPING COUNTRIES ARE ON A DIFFERENT TRAJECTORY

In contrast to the stalling of financial integration in Europe and other advanced economies, developing countries have continued to see strong capital inflows. The rise of these nations as a force in financial globalization has expanded the web of countries now linked into world markets and has introduced new dynamics.

Capital flows into developing countries remain strong

In 2012, some \$1.5 trillion in foreign capital flowed into emerging markets, near or above the 2007 pre-crisis peak for many regions (Exhibit 20). These countries attracted 32 percent of global capital flows in 2012, up from just 5 percent in 2000.

Several trends explain the continued growth of foreign investment in emerging economies. One is the improved macroeconomic and political stability in many of these countries, which has led to upgraded credit ratings and robust GDP growth.³⁰ In addition, faced with historically low interest rates in mature economies, global investors are seeking higher yields in emerging markets. Corporations also provide significant capital to emerging economies, as they seek to tap new consumer markets and create global supply chains.³¹ In 2012, foreign direct investment accounted for 53 percent of capital inflows to emerging economies, compared with 30 percent in mature markets (Exhibit 21).

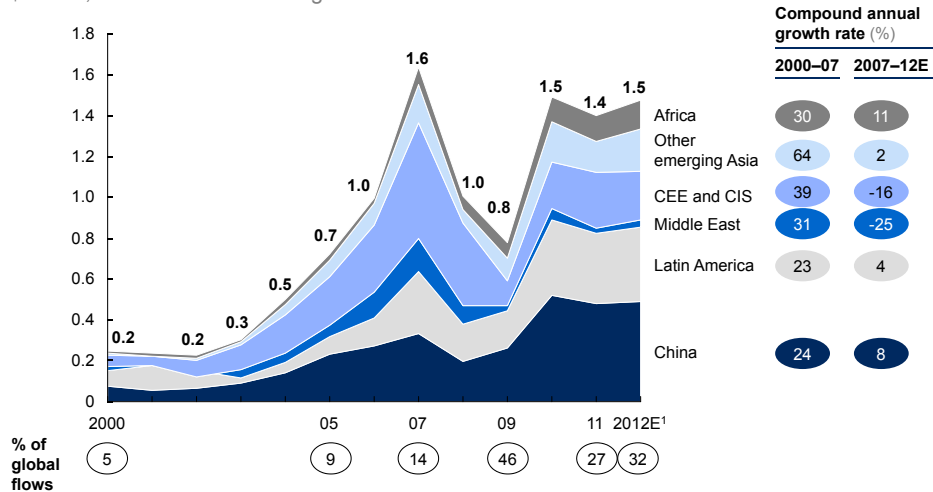
³⁰ For example, see recent MGI reports on the economic performance of Indonesia and of African nations (*The archipelago economy: Unleashing Indonesia’s potential*, September 2012, and *Africa at work: Job creation and inclusive growth*, August 2012).

³¹ *Urban world: Cities and the rise of the consuming class*, McKinsey Global Institute, June 2012, and *Winning the \$30 trillion decathlon*, McKinsey & Company, August 2012.

Exhibit 20

Capital inflows to developing economies totaled \$1.5 trillion in 2012 and are near the pre-crisis peak

Global capital inflows to developing countries, by region
 \$ trillion, 2011 constant exchange rate



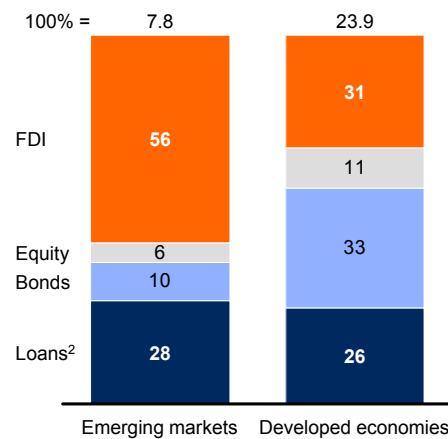
¹ Estimated based on data through Q2 2012. For countries without quarterly data, we use trends from the Institute of International Finance.

SOURCE: IMF Balance of Payments; Institute of International Finance; McKinsey Global Institute analysis

Exhibit 21

Foreign direct investment is a much larger share of capital inflows to emerging markets than to developed countries

Cumulative capital inflows, 2007-12E¹
 %; \$ trillion, 2011 constant exchange rate



¹ Estimated based on data through the latest available quarter: Q3 for major developed economies, Q2 for other advanced and emerging economies. For countries without quarterly data, we use trends from the Institute of International Finance.

² Includes primarily loans, currency, and deposits, as well as a small share of trade credit.

SOURCE: IMF Balance of Payments; Institute of International Finance; McKinsey Global Institute analysis

Foreign capital flows into developing countries could become vastly larger in the years ahead. Collectively, these nations account for 38 percent of global GDP but only 7 percent of foreign investment in equities and bonds, 13 percent of global foreign loans outstanding, and 27 percent of total FDI. Despite the strong long-term growth prospects in these markets, investors around the world are underweight in assets of developing countries in their portfolios. To understand the potential scale of future investment, consider that if global investors adopted a GDP-weighted asset allocation model, foreign investment in the stock and bond markets of developing nations would increase fivefold, rising by \$14 trillion.

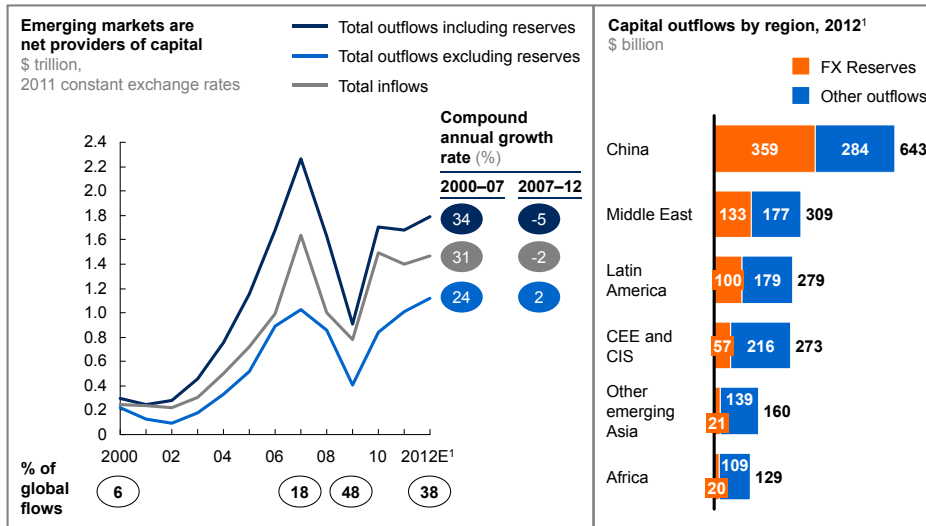
Many barriers stand in the way of significant growth in foreign investments in emerging economies, of course. As noted in Chapter 1, developing countries have much shallower financial markets than mature economies. The lack of well-developed financial market infrastructure has limited capital flows, in part by limiting the assets available to foreign investors. We estimate, for example, that only about half of equity shares in developing countries are freely traded—compared with about 85 percent in advanced economies. To benefit from the strong growth prospects of emerging markets, foreign investors will need to find new channels for gaining exposure to these economies.

Capital flows out of developing countries are diversifying beyond FX reserves

Capital flows *out* of developing countries have grown even more rapidly than inflows, totaling \$1.8 trillion in 2012 (up from \$295 billion in 2000; Exhibit 22). Central bank foreign exchange (FX) reserves have been the fastest-growing component of foreign investment from developing countries, accounting for roughly 45 percent of the total stock of foreign assets (Exhibit 23). The remainder consists mainly of FDI and cross-border loans from commercial and development banks. In some regions, particularly the Middle East, portfolio investments in foreign equities and bonds by sovereign wealth funds and wealthy individuals are also significant.

Exhibit 22

Emerging markets' capital outflows are even larger than inflows, at \$1.8 trillion in 2012



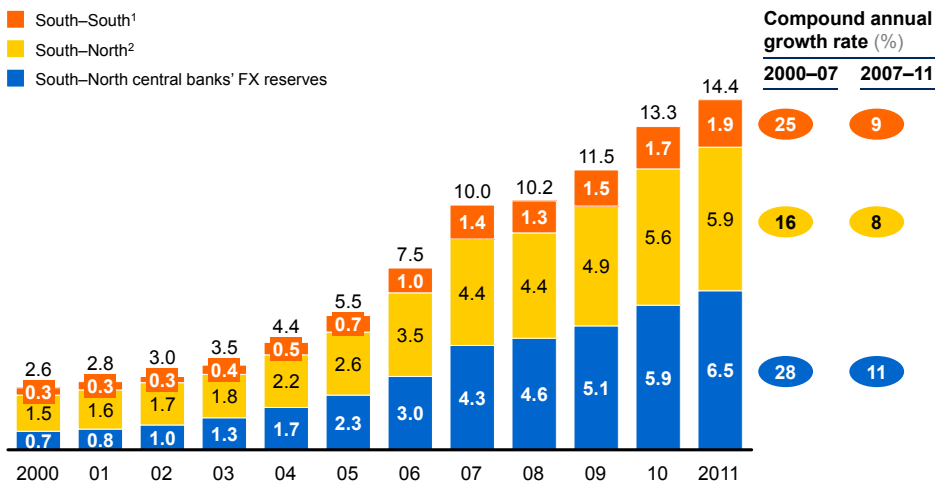
¹ Estimated based on data through Q2 2012. For countries without quarterly data, we use trends from the Institute of International Finance.

SOURCE: IMF Balance of Payments; Institute of International Finance; McKinsey Global Institute analysis

Exhibit 23

Central banks account for 45 percent of developing countries' foreign investment assets

Stock of total foreign investment assets of developing (South) economies
\$ trillion, nominal exchange rates



¹ Foreign investment assets of developing countries in other developing countries.

² Foreign investment assets of developing countries in advanced economies.

SOURCE: McKinsey Global Institute Bilateral Foreign Investment database; McKinsey Global Institute analysis

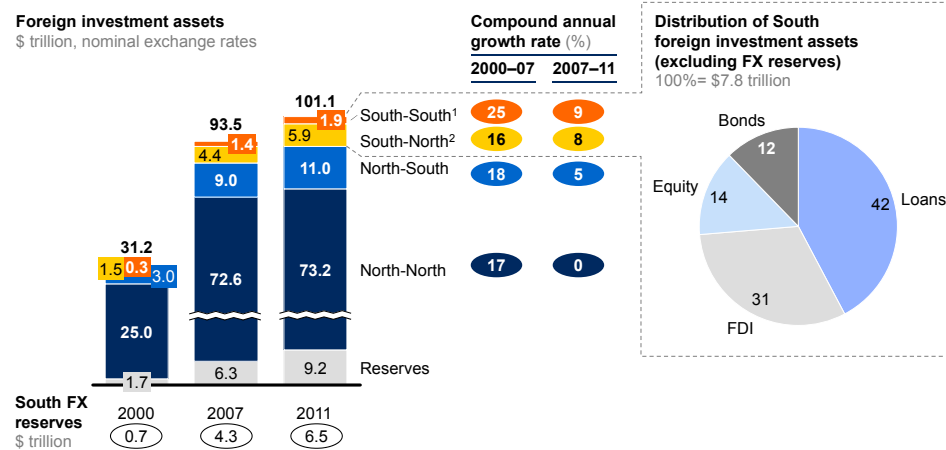
Most of the foreign investment by emerging markets has gone to advanced economies (\$12.4 trillion), reflecting the desire of investors in the developing world to diversify risk and returns. Slightly more than half of these holdings (\$6.5 trillion) are central bank reserve assets; while these grew at an annual rate of 28 percent from 2000 to 2007, their growth has slowed significantly since the crisis.

Today, 14 percent of emerging-market foreign investment assets are in other developing nations. These “South-South” investments are small in the global context (accounting for only about 2 percent of all cross-border investment assets, or \$1.9 trillion; Exhibit 24), but they represent a significant new dynamic that is incorporating a new tier of countries into the financial system. The Middle East and China drive the majority of these “South-South” investments, with Latin American countries playing a much smaller role.

Exhibit 24

Most developing countries’ foreign investment assets are in advanced economies, but “South-South” foreign investment has also increased

Stock of total foreign investment assets of developing (South) and advanced (North) economies



1 Foreign investment assets of developing countries in other developing countries.
 2 Foreign investment assets of developing countries in advanced economies.
 NOTE: Numbers may not sum due to rounding.
 SOURCE: McKinsey Global Institute Bilateral Foreign Investment database; McKinsey Global Institute analysis

The motivations behind “South-South” investments may differ from those driving investors and companies in advanced economies. China’s investments in other emerging markets, for instance, are primarily linked to natural resources and usually take the form of FDI or cross-border lending. These have been concentrated in Latin America and, to a lesser extent, Africa (see Box 4, “The rise of Chinese outward FDI and lending”).

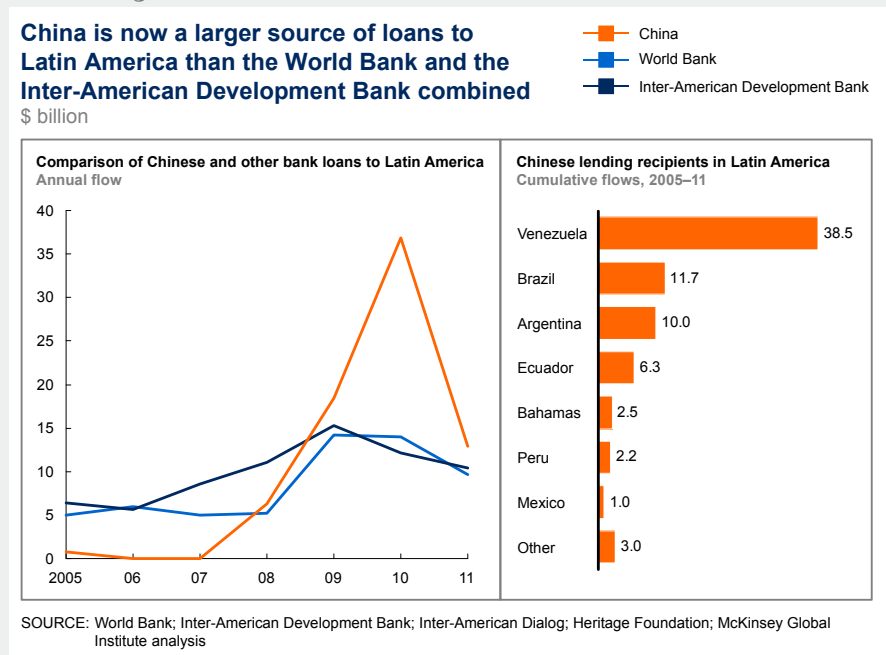
Box 4. The rise of Chinese outward FDI and lending

While much has been written about China's \$3.2 trillion in foreign reserves, its other foreign investment assets, which totaled \$1.5 trillion at the end of 2011, have attracted less notice. Cross-border lending accounts for nearly 60 percent of the non-reserve outward investment, and foreign direct investment accounts for one-quarter (purchases of foreign equities and bonds make up the remaining 15 percent). Almost half of China's non-reserve foreign assets are in developing countries, a much higher share than advanced economies hold.

China's outstanding foreign loans totaled \$838 billion at the end of 2011. Much of its foreign lending funds deals involving Chinese companies (for instance, funding construction of a mine in Peru by a Chinese company). To put the scale of Chinese foreign lending in perspective, consider that in 2009, Chinese lending to Latin America overtook the combined lending of the Inter-American Development Bank and the World Bank in the region (Exhibit 25). We estimate that China accounts for 12 to 20 percent of the total foreign loans outstanding to Latin America. In Africa, China's Export-Import Bank has lent more than the World Bank over the past decade.¹ And at the Forum on China-Africa Cooperation in July 2012, China pledged an additional \$20 billion in new lending to the continent over the next three years, twice the size of its previous three-year commitment.

Chinese companies had \$364 billion of foreign direct investment in other countries at the end of 2011, up from just \$33 billion in 2000. Roughly half is in advanced economies. Emerging Asia accounts for 15 percent, Latin America for 13 percent, and Africa for 11 percent. As with foreign lending, most FDI is linked to commodities.

Exhibit 25



¹ *The Africa-China connection*, Fitch Ratings, December 2011.

By contrast, Middle Eastern investment into other developing countries is predominantly concentrated in the surrounding region. For example, about 70 percent of Kuwait's FDI is in other Gulf Cooperation Council, Middle Eastern, or North African countries. This often funds real estate development or the expansion of companies within the region.

For some recipient countries, "South-South" capital represents a majority of foreign investment. Thirty developing countries now receive more than half of their foreign direct investment from other emerging markets, although these are mainly very low-income or conflict countries, such as Cuba, the Democratic Republic of the Congo, Guinea, Niger, North Korea, and Sierra Leone. This funding often comes with different terms than investment from advanced economies. In Africa, for instance, a growing share of commodity deals now include the development of infrastructure or schools. Many attribute this shift to the growing influence of China on the continent.

MULTINATIONAL COMPANIES CONTINUE TO EXPAND THROUGH FOREIGN DIRECT INVESTMENT

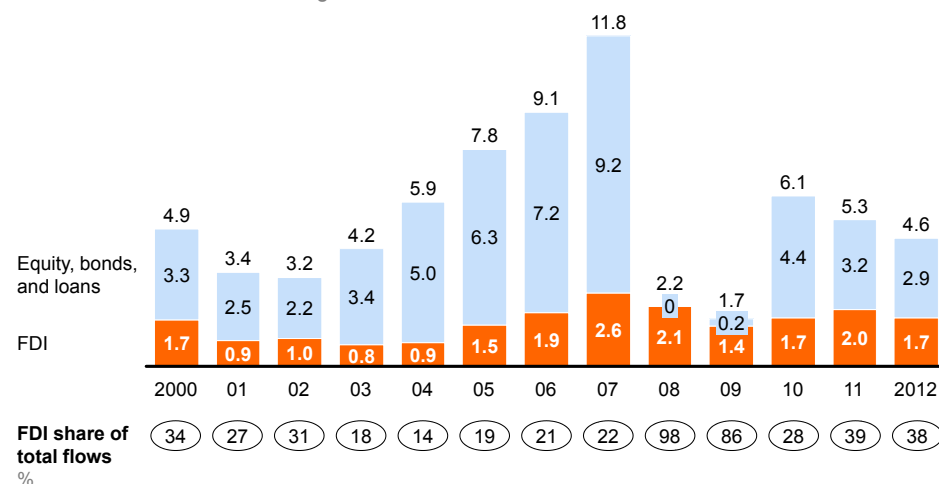
Foreign direct investment, which we define as investment that establishes at least a 10 percent stake in a foreign entity, has been a growing component of cross-border capital flows over the past 30 years, and more recently, its share has increased significantly as cross-border lending has declined. FDI continued throughout the crisis and now accounts for roughly 40 percent of global capital flows (Exhibit 26). We estimate that FDI declined by 15 percent in 2012, reflecting a continued retrenchment in Europe and uncertainty in the United States. However, this trend is expected to reverse in 2013 and beyond.³²

Exhibit 26

Foreign direct investment continued through the crisis and now accounts for 38 percent of total global capital flows

Total global capital flows

\$ trillion, constant 2011 exchange rates



1 Estimated based on data through the latest available quarter : Q3 for major developed economies, Q2 for other advanced and emerging economies. For countries without quarterly data, we use trends from the Institute of International Finance.

SOURCE: IMF Balance of Payments; Institute of International Finance; McKinsey Global Institute analysis

³² See *Global investment trends monitor*, UNCTAD, January 2013.

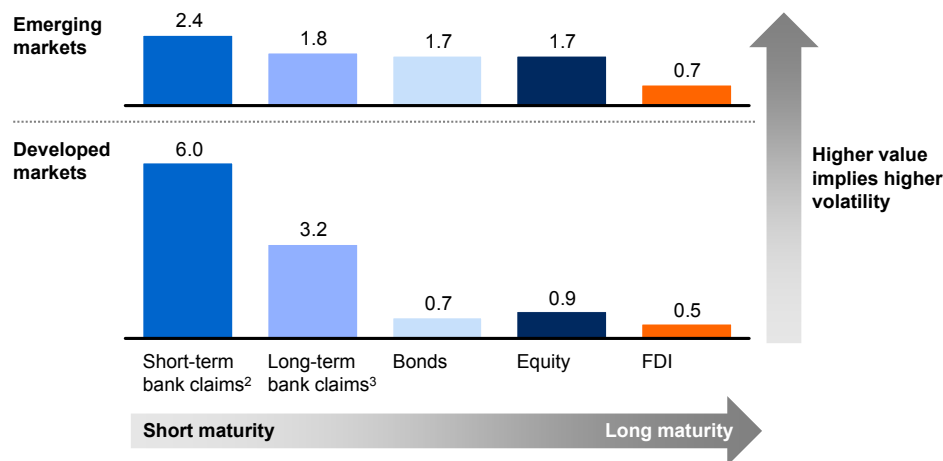
In contrast to cross-border lending, which can dry up quickly, FDI has consistently proven to be the least volatile type of capital flow in emerging markets and developed countries alike. This reflects the long-term nature of such investment. FDI is often driven by multinational companies as they seek to develop resources, build supply chains, or expand beyond saturated domestic markets to capture growth in developing economies. Companies do not undertake the decision to expand overseas lightly, and they typically make such commitments as part of a long-term, multiyear strategy. The growth of FDI also reflects the rising influence of sovereign wealth funds and state-owned corporations.

The increased role of FDI in financial globalization should have a stabilizing influence on cross-border capital flows. Our analysis, consistent with other academic research,³³ finds that foreign direct investment is the least volatile type of cross-border capital flow. This is true in both emerging markets and advanced economies, regardless of the specific time period examined (Exhibit 27).

Exhibit 27

FDI is the least volatile type of capital flow; short-term lending is 3 to 12 times more volatile

Coefficient of variation of inward cross-border flows by maturity¹
1Q00–4Q11



1 Coefficient of variation defined as standard deviation normalized by the mean; calculations are made on quarterly data.

2 Maturity less than or equal to two years.

3 Maturity more than two years.

SOURCE: Bank for International Settlements; IMF; McKinsey Global Institute analysis

By contrast, cross-border lending has been the most volatile type of capital flow over the past 20 years, with more episodes of large surges and reversals than bond and equity flows, especially in emerging economies.³⁴ This is in part because cross-border lending tends to be very short-term: 56 percent of cross-border loans have maturities of less than two years. During periods of stable economic growth, short-term loans are typically rolled over upon maturity. But in times of stress, banks can easily let the loans expire without replacing them, thereby withdrawing their funding. Even longer-term loans are more volatile than

33 See, for example, Carmen Broto, Javier Díaz-Cassou, and Aitor Erce, “Measuring and explaining the volatility of capital flows to emerging countries,” *Journal of Banking & Finance*, volume 35, issue 8, August 2011.

34 See, for example, Kristin J. Forbes and Francis E. Warnock, *Debt- and equity-led capital flow episodes*, NBER working paper number 18329, August 2012.

portfolio flows or FDI. This holds true in both emerging markets and advanced economies, with a few isolated exceptions (such as India since 2006).

Multinational companies will likely continue to be a more significant conduit for global capital. Increasingly this includes both private-sector and state-owned companies from emerging markets. In 2012, emerging-market companies accounted for 37 percent of cross-border M&A, a record.³⁵ Corporations across advanced economies currently have large cash reserves, and they may assume an even greater role in the years ahead as providers of capital, especially within their own supply chains.

□ □ □

Four years after the financial crisis, capital flows across borders remain at a much lower volume. In 2012, global cross-border lending and FDI both contracted compared with the previous year. The world seems to be at a crossroads. The current path is heading toward a more compartmentalized financial system that relies more heavily on domestic capital formation, but there is another route toward a more balanced model of financial globalization. The next chapter explores these scenarios, examining the repercussions for global financial markets, national economies, and growth.

³⁵ *Global investment trends monitor*, UNCTAD, January 2013.

3. The path forward: Two scenarios for global financial markets

With the full ramifications of the 2008 crisis still unfolding and new regulations waiting to be implemented, two starkly different futures are possible. In one, growth in financial assets remains anemic and the global financial system becomes more balkanized. While such a system may reduce the risk of a global crisis, the world needs to make big investments to fuel the next wave of prosperity, and these may be constrained, potentially resulting in lower growth.

A better outcome would involve more sustainable growth and development of financial systems around the world. This would entail four essential components. The first is wide access to financing through deep, liquid, and well-regulated markets. Second, a range of institutions and channels should be in place in each country to intermediate between borrowers and savers—not only a banking system, but also capital markets, an insurance industry, and pension plans, to name a few. The third element is competition among institutions, which promotes efficient operations and a lower cost of borrowing. Last—but certainly top of mind after 2008—a healthy financial system should be stable and resilient enough to ward off crises.

In the wake of the crisis, some have questioned whether openness is necessary for a healthy financial system. Clearly, foreign capital flows created volatility. But it is important to consider that financial globalization can also further the goals outlined above (see Box 1 in Chapter 1 for more on this topic). Foreign institutions and investors increase the availability of capital and force local players to raise their game. They impose discipline that compels local companies to improve corporate governance in order to meet lending standards and listing requirements. An open financial system allows local companies to raise capital in markets worldwide, and helps global savers and investors diversify their portfolios.

This chapter paints sharply contrasting pictures of how the global financial system might evolve in the next few years, analyzing the potential implications of continued stalling versus a successful reset of the system.

SCENARIO 1: FINANCIAL GLOBALIZATION RETREATS

The financial crisis caused many observers—including some policy makers—to question the economic and social utility of large, globally integrated financial institutions and markets. In one possible future scenario, that skepticism takes root.

Officials in emerging economies have long worried that a large financial sector is a potential hazard, and in this scenario, they curtail further financial market development. By 2020, as emerging economies account for a larger share of global GDP, their lack of further financial deepening would reduce the global ratio by around 25 percentage points. Investors would find limited options to diversify by entering potentially high-growth emerging economies; foreign capital would shy away from shallow markets in these countries that lack transparency and enforcement.

Advanced economies would experience little if any additional financial deepening through 2020 in this scenario. Deleveraging of the private sector and the financial sectors would continue, while government debt may continue to rise as growth remains subdued. More restrictive policies toward finance may take hold; there is already movement in multiple EU countries toward implementing transaction taxes on financial trades.³⁶

The retrenchment of global banks could lead to a loss of competition and expertise in the financial sectors of some smaller countries, driving up the cost of borrowing, and bank lending would be a smaller source of financing in advanced economies. Without the presence of deep corporate bond markets and basic securitization to provide alternative sources of funding, borrowers in these regions could face a credit crunch.

In this scenario, cross-border capital flows would not regain their pre-crisis peak for many years. Europe would stay on its current course—with no breakup, but only slow progress toward a banking union framework—and the continent's cross-border activity would continue to wane.

The “retreat” scenario is one in which current trends continue. It points to a world shaped by a high degree of risk aversion—one that may choke off the financing needed for investment in business expansion, infrastructure, housing, innovation and R&D, education, and human capital development. A reduction in long-term lending to corporations is already apparent in Europe; only corporate loans with maturities of one year or less show positive growth.

Sharp regional differences could emerge in the availability of capital: Developing economies face massive investment needs as they urbanize and industrialize, but many will encounter a shortage of capital. Countries with high savings rates would find themselves with surplus capital but with too few good investment opportunities; savers and investors in these countries could face lower returns.

³⁶ As this report went to press, EU finance ministers approved plans for 11 member countries (including Germany and France) to proceed with plans to impose transactions taxes on securities and derivatives trades. In the United States, two members of Congress are discussing introducing a similar measure for debate.

If current trends continue, the value of financial assets relative to GDP would remain flat or even decline by 2020. Based on our analysis of the relationship between financing to households and non-financial corporations and economic growth, we estimate that the lack of financial deepening in this scenario could potentially reduce GDP growth by roughly 0.45 percentage points.³⁷

The crisis underscored the need for greater prudence and stability, but unless current regulatory reform initiatives succeed in restoring confidence, there is a possibility that the pendulum may swing too far toward excessive caution. This risks stifling the global recovery and creating a financial system that fails in its primary function: providing a healthy flow of credit to the real economy.

SCENARIO 2: FINANCIAL GLOBALIZATION RESETS

With the right actions by financial institutions and policy makers, the world could take a more balanced approach to financial market development and globalization that would support economic growth. This scenario hinges on putting a solid global regulatory framework in place to correct the excesses of the pre-crisis years. This includes well-capitalized banks, a clear plan for cross-border resolution and recovery, improved macroprudential supervision, and mutual confidence and cooperation among national regulators. This alternative scenario would also see Europe successfully completing a banking union.³⁸ Much is riding on the major reform initiatives that are currently under way on all these fronts.

Banks across advanced economies would strengthen their balance sheets and resume prudent lending in this scenario, while emerging markets would develop more robust financial systems. With sound regulatory architecture in place to provide stability, foreign capital would flow to geographies with major investment needs. But close macroprudential supervision would watch for potential asset bubbles and dangers associated with very large current account imbalances.

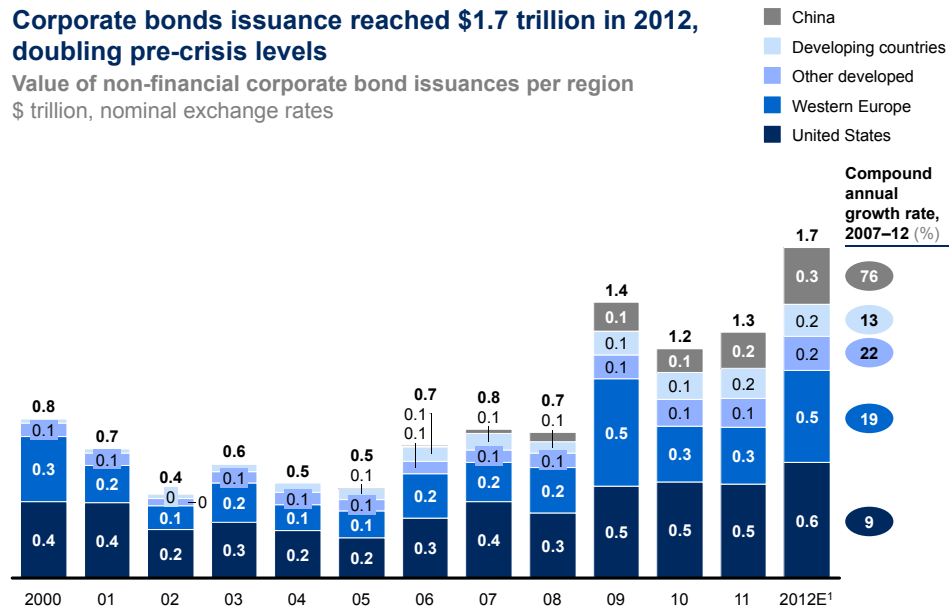
In this scenario, countries would pursue opportunities for sustainable financial deepening, such as the expansion of corporate bond markets, which remain underdeveloped in most regions. While the potential growth of these markets has been discussed for decades without being realized, conditions are changing. In Europe, net lending to corporations with maturities of greater than five years turned negative in 2012. Around the world, the largest companies have increasingly turned to bond markets for debt funding: since 2008, annual non-financial corporate bond issuance has jumped to more than twice its pre-crisis level (Exhibit 28). This opens up a new and stable channel of financing for the largest companies (see Box 5, “The opportunity in corporate bond markets”).

³⁷ See the appendix for details of our regression analysis.

³⁸ Three elements are under discussion in establishing a banking union in the Eurozone: common supervision of banks, common deposit insurance, and common authority for resolving failing banks. The European Central Bank is expected to assume supervisory responsibility for the largest banks in the Eurozone in 2014.

Exhibit 28**Corporate bonds issuance reached \$1.7 trillion in 2012, doubling pre-crisis levels**

Value of non-financial corporate bond issuances per region
\$ trillion, nominal exchange rates



¹ Annualized from data through September 11, 2012.

NOTE: Numbers may not sum due to rounding.

SOURCE: Dealogic; McKinsey Global Institute analysis

Box 5. The opportunity in corporate bond markets

Analysis of all corporate bond issues from 2006 through 2011 shows that the main users of these markets are very large companies. In the United States and Europe, more than 80 percent of issues are for \$100 million or more, and more than 80 percent of companies that issue corporate bonds have at least \$500 million in annual revenue (Exhibit 29).

Nonetheless, our analysis indicates that there is ample room to expand corporate bond markets from large firms alone. Data on the total credit extended to firms in advanced economies with more than \$500 million in revenue show that the majority of debt in most countries comes from bank loans (Exhibit 30). However, if these companies shifted 60 percent of their total debt financing to bonds, investment-grade and high-yield markets would collectively expand by more than \$1 trillion. This figure is not a forecast, but rather an illustration of the scale of the opportunity, as a shift of this magnitude would take years to play out. Building debt markets in emerging economies represents an even more compelling opportunity.

The development of corporate bond markets (as well as basic and well-regulated securitization markets for many types of loans) would provide a good source of long-term finance that could enhance financial market stability. In many countries, even the largest companies get most of their debt funding from banks rather than capital markets. As banks aim to reduce leverage and in some cases need to reduce the size of their balance sheets, shifting some of this credit demand to bond markets would be beneficial.

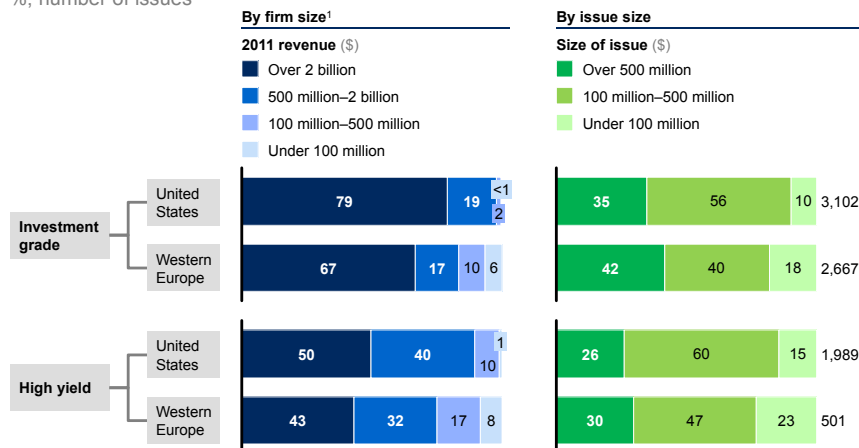
Box 5. The opportunity in corporate bond markets (continued)

Structural and regulatory reforms would be needed to unleash this potential growth in corporate bond markets. For many countries, this will be a long evolutionary journey. But South Korea's development of a corporate bond market after the 1997 crisis, for instance, shows that significant progress can be achieved more quickly. The basic requirements of such a market are well-known, including establishment of a yield curve, widespread credit ratings of companies, sufficient demand from institutional investors, and the right regulatory framework to enable a private placement market (key to the high-yield bond market). Establishing a corporate bond market may also be more feasible where a country already has a developed equity market, since corporations that list on stock markets already meet financial disclosure standards.

Exhibit 29

More than 80 percent of corporate bond issues are from companies with over \$500 million in annual revenue

Cumulative corporate bond issuance, 2006–11
%; number of issues

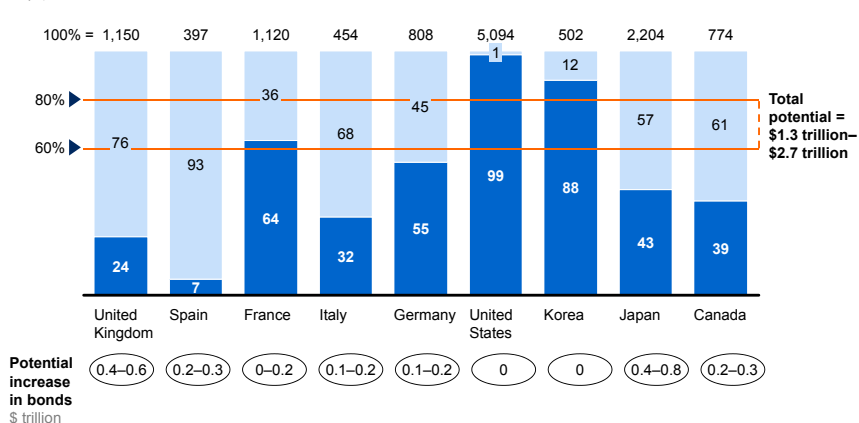


¹ Size measured by 2011 revenue; revenue figures not available for 523 of 2,816 issuers, which are excluded from the firm size count; 99 subsidiaries of larger companies excluded from data.
SOURCE: Dealogic; McKinsey Global Institute analysis

Exhibit 30

Developed economies have room to further develop corporate bond markets

Total outstanding debt of non-financial corporations with more than \$500 million in revenue, 2011¹
%; \$ billion



¹ Includes short-term and long-term loans and leases.
² Measured as difference between current bond share and 60% to 80% bond share.
SOURCE: Capital IQ; McKinsey Financial Assets Database; Dealogic; McKinsey Global Institute analysis

Developing nations have significant room to deepen their financial systems, and this scenario sees them making solid progress. Our database of global financial assets shows that equity market capitalization is only 44 percent of GDP in emerging economies,³⁹ while bonds of non-financial corporations make up 4 percent of debt financing on average, and the value of securitized loans is less than .5 percent of GDP. Credit to households and debt of corporations is only 76 percent of GDP in emerging markets compared with 146 percent of GDP in advanced economies, indicating a great deal of room to increase credit to this sector. Past McKinsey research has estimated that SMEs in emerging markets face at least a \$2 trillion credit gap.⁴⁰

There is also tremendous scope for providing formal banking services to the currently 2.5 billion “unbanked” people around the world. Greater financial inclusion would help many of the world’s poorest households access affordable credit, accumulate savings, and improve their living standards, while accelerating financial deepening.⁴¹

In this scenario, we assume that by 2030, developing countries reach South Korea’s current financial depth. This reflects the time needed to build the right framework and cultivate a domestic base of institutional investors to spur demand. If that progress is achieved, the average financial depth of these countries would increase from 157 percent of GDP today to 237 percent of GDP by 2020. This translates into growth of financial assets from \$43 trillion as of mid-2012 to more than \$125 trillion by 2020—representing significant opportunities for banks, investors, and other financial intermediaries around the world.⁴²

While cross-border lending is unlikely to return to the heady peaks seen before the crisis, this scenario would see modest growth from today’s levels. But instead of reopening the floodgates of volatile short-term lending and interbank lending, portfolio flows of equity and bond purchases and FDI could become larger components of international capital flows. As global investors pursue higher growth and greater diversification, these inflows into emerging markets could rise sharply. Deeper, more liquid markets would not only attract this investment but would also reduce the associated risk. This scenario could see financial globalization and financial deepening working together in a virtuous cycle, with more sustainable capital flows that enhance the efficiency, liquidity, and stability of a country’s financial system.

As large corporations seek to tap into the world’s fastest-growing consumer markets and access cheaper sourcing for their supply chains, FDI continues to increase in this scenario. Corporations across advanced economies currently have large cash reserves, and they may assume an even greater role in the years ahead as providers of capital, especially within their own supply chains. This would reduce volatility in cross-border flows, as FDI is typically part of a multiyear

39 This considers only publicly traded shares.

40 *Two trillion and counting*, McKinsey & Company and the International Finance Corporation, October 2010.

41 Alberto Chaia, Tony Goland, and Robert Schiff, “Counting the world’s unbanked,” *The McKinsey Quarterly*, May 2010.

42 We created several scenarios for emerging market financial asset growth, based on different assumptions regarding GDP growth rates and exchange rate movements. See also *The emerging equity gap: Growth and stability in the new investor landscape*, McKinsey Global Institute, December 2011.

growth strategy. If annual FDI inflows were to remain at 3 percent of GDP for developed economies and continue the post-crisis growth trend of 2009–11 in emerging economies, the global total of FDI inflows would rise from \$2.0 trillion in 2011 to \$4.8 trillion in 2020.

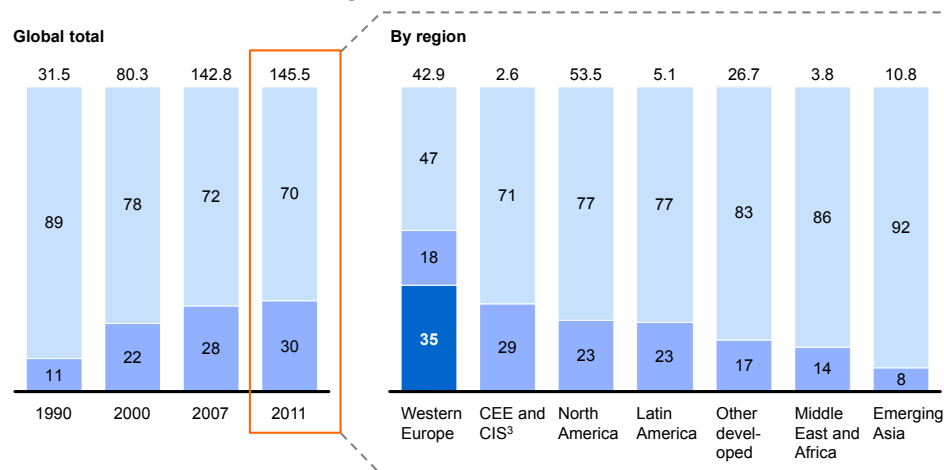
Portfolio investments in foreign equities and bonds could also continue to grow. Today, foreign investors own 30 percent of the world’s equities and bonds, but that share varies across countries (Exhibit 31). Developing countries collectively account for 38 percent of global GDP but, as noted in Chapter 2, are recipients of less than 7 percent of the global stock of foreign investment in equities and bonds. Institutional investors around the world could change this dynamic, but their ability to do so depends on whether restrictions are eased on the geographic composition of pension and insurance portfolios. Cross-border flows could also accelerate if more vehicles are created to help retail investors diversify globally.

Exhibit 31

As of 2011, 30 percent of global financial assets were owned by foreign investors

Equity and debt securities by ownership, 2011¹
%; \$ trillion, 2011 constant exchange rates

■ Domestic
■ Foreign²
■ Intra-Europe



1 Includes market capitalization of listed equities and governments, financial, and non-financial corporate debt securities.
2 Securities held by foreign entities.
3 Central and Eastern Europe and the Commonwealth of Independent States.
SOURCE: McKinsey Global Institute Financial Assets Database; IMF Balance of Payments; McKinsey Global Institute analysis

This alternative scenario results in a system that provides financing for innovation and investment without sacrificing safety—if policy makers can balance these two goals. Without the proper regulatory framework in place, a return to rapid growth in financial assets and cross-border capital flows leaves the world vulnerable to the risk of yet another crisis—and all the collateral damage that would entail.



The direction that global financial markets take from here is far from certain. Maintaining the status quo may result in weak growth for years to come, as imbalances and market gaps go unaddressed. But it is possible to shape a more sustainable model of financial market development and financial globalization that promotes recovery and economic growth. The following chapter outlines the policy challenges this would entail—and explores the implications and opportunities facing banks and investors in the meantime.

4. Navigating the new landscape

The 2008 crisis has cast a long shadow, and in many ways, its full ramifications are still unfolding. The global financial system is already undergoing a transformation—and it may ultimately emerge with a decidedly different form. Regardless of whether financial deepening and global integration resume or remain stalled, some of the contours of this new world are coming into focus:

- Much of the sharp rise and steep fall of financial assets and capital flows from 2000 to 2012 can be traced to a global credit, equity, and housing bubble that has now deflated. The pre-crisis years were an aberration for most countries and asset classes, so the days of rapid growth and outsized returns in financial markets are over. Market participants will need to shift their expectations and their strategies accordingly.
- Financial depth in most advanced economies is likely to increase only minimally. There is little room for equities or lending to grow faster than GDP in most developed countries. While this translates into a lack of broad market momentum, pockets of growth, such as the opportunity to expand corporate bond markets, can be found in some countries and sectors.
- Emerging markets have tremendous scope for healthy financial deepening, but realizing this will require significant institutional development and strong supervisory and enforcement capabilities.
- Given new regulatory changes, global banking flows are not likely to rebound quickly. They may expand in the longer term in one scenario, but even then only at a more measured pace. Cross-border capital flows will become more oriented toward foreign direct investment and portfolio investment in equity and debt.
- The trends described above may converge to create funding gaps in some countries and sectors. SMEs and infrastructure projects, in particular, may face financing constraints. Capital may be in particularly short supply in emerging markets with large investment needs that lack very high domestic savings rates.

Policy makers will play an important role in shaping outcomes, as their actions can set the global financial system on a stable path of growth. But policy initiatives—especially those requiring international coordination—can take years to realize. Until then, banks and investors need a flexible strategy for operating in a new and changing environment. Decision making is more complex in a time of uncertainty, but the ideas below offer a starting point.

POLICY MAKERS: RESETTING FINANCIAL GLOBALIZATION

The financial crisis resulted from a confluence of leverage, risk taking, and insufficient regulation—and the globalization of trade and finance opened the door to contagion, which exacerbated the impact. The response has been to strengthen the capital and liquidity position of banks and limit risk taking to prevent future disruptions. Policy makers have begun to recalibrate their views on the benefits and costs of financial-sector liberalization and capital account openness. These steps are important for moving to a more stable global financial system.

However, it is also essential to consider the ability of the system to provide financing for economic growth. Facilitating the deepening and maturity of financial markets and restoring more stable international capital flows can ensure that borrowers have better access to capital, allowing businesses, governments, and households to invest and build for the future. (See Box 1 in Chapter 1 for more detail on how these two forces can work in tandem in a healthy ecosystem.) It can also remove a layer of risk and volatility that adds to borrowing costs in emerging markets. The objectives outlined below would help to set this process in motion:

- **Make the current agenda for global regulatory reform a reality.** The 2008 financial crisis and the subsequent euro crisis brought home the dangers of unsustainable financial deepening and capital flows. Healthy financial globalization cannot resume without robust and consistent safeguards in place to provide confidence and stability. Much is riding on the crucial regulatory reform initiatives that are already under way. These include working out the final details and implementation of Basel III, developing clear processes for cross-border bank resolution and recovery, building robust macroprudential supervisory capabilities, and, in the Eurozone, establishing a banking union.⁴³
- **Consider the hidden costs of closed-door policies.** Openness to foreign investment and capital flows entails risk, as recent crises demonstrated, but it also brings clear benefits. Tightly restricting foreign banks and capital inflows may reduce the risk of contagion, but it also limits the benefits, such as greater capital access and competition, that foreign players can bring to a financial sector. The right answer for each country will depend on the size and sophistication of its domestic financial sector and the strength of its regulation and supervision. But the objective of building a competitive, diverse financial sector deserves to be a central part of the policy agenda.

⁴³ Three elements are under discussion in establishing a banking union in the Eurozone: common supervision of banks, common deposit insurance, and common authority for resolving failing banks. The European Central Bank is expected to assume supervisory responsibility for the largest banks in the Eurozone in 2014.

- **Build capital markets to meet the demand for credit.** Capital markets are good sources of long-term finance—and they can provide crucial alternatives as some banks scale back lending. Most countries have the basic market infrastructure and regulations in place, but enforcement and supervision is often weak. Nations seeking to build corporate bond markets must have standardized rating systems, clearing mechanisms, and a solid regulatory foundation. Private placement markets are important for high-yield issuers, and secondary trading markets for government debt can spur the growth of corporate bond markets. Securitization markets need a comprehensive regulatory framework, as well as standardized, plain-vanilla instruments; new entities may need to be created to aggregate loans. Underlying the development of both equity and debt capital markets are robust corporate governance, financial reporting, and disclosure on the part of companies seeking to tap these markets. In addition, the development of these markets requires that banks price corporate loans at their full cost, so borrowers can compare different funding sources on an equivalent basis. When these elements are in place, a financial system is better equipped to attract capital and deploy it productively.
- **Create new financing mechanisms for constrained borrowers.** In an era of bank deleveraging, funding for large-scale investment projects, infrastructure, and SMEs may be in short supply in many countries. But policy makers could promote the development of new financial intermediaries and instruments aimed at filling gaps in the current landscape. Public-private lending programs and investment funds, infrastructure banks, small-business lending programs, and peer-to-peer lending and investing platforms can increase access to capital for underserved sectors. In addition to creating the regulatory framework for such mechanisms, governments may choose to provide capital, credit guarantees, bridge financing, and tax incentives, often in collaboration with the private sector. These actions will become more urgent in an increasingly credit-constrained world, but they have to be carefully designed; examples abound of inefficient and distortionary public financing attempts. We discuss a range of policy options in Box 6, “Policy options for promoting financing for underserved borrowers.”
- **Promote stable cross-border flows of finance.** Regulatory efforts have focused on containing the dangers of cross-border lending. By contrast, there has been relatively little discussion of unlocking what could be a major source of stable, long-term capital.⁴⁴ Many public pension funds and insurance companies have geographic restrictions on their investment portfolios that are meant to encourage investment at home, but limit the potential returns that might come from seeking out growth in emerging markets. Designed to contain risk, they actually concentrate it by increasing domestic exposure. In addition to allowing the international diversification of portfolios, policy makers can look at removing legal barriers to foreign ownership and foreign direct investment, creating new channels (such as mutual funds) for retail investors in emerging markets, and instituting cross-border resolution mechanisms for financial institutions and companies. As emerging markets move toward liberalizing their capital accounts over time, they will need to build robust monitoring and supervisory capabilities.⁴⁵

44 Group of Thirty, *Long-term finance and economic growth*, February 2013.

45 See *Liberalizing capital flows and managing outflows*, International Monetary Fund, March 2012.

Box 6. Policy options for promoting financing for underserved borrowers

Governments around the world can take an array of actions to ensure a flow of financing to sectors of the economy that are constrained due to market failures or to the current retrenchment in the financial system. Caution is needed: the history of such efforts is filled with programs that failed to widen access to credit and wasted public funds. Involving the private sector is a hallmark of the more successful programs. If we enter an era of limited financial deepening and weak economic growth, employing some of these strategies may be justified.

First, governments can **set the ground rules and direction** that enable private-sector entities to undertake new financing activities. Through regulatory provisions and supervision, governments can foster new types of intermediaries. The US JOBS Act of 2012, for instance, created a framework to enable equity fundraising for small startups—changes designed to help the smallest companies “crowdfund” financing.¹ Also in 2012, the UK’s Financial Services Authority announced intentions to solidify new rules for emerging peer-to-peer lending networks such as MarketInvoice and Zopa; many view this as a necessary step to reduce the information asymmetries that have limited their growth. Establishing standards—such as credit rating definitions for the private placement market or requirements for conforming mortgages that receive some government preferences—is another type of intervention that can spur financing.

Second, governments can **create incentives** to enable the private sector to better achieve policy goals. These may involve providing tax incentives for banks, intermediaries, and investors for certain types of instruments—such as the tax-preferred status granted to US municipal bonds, which in turn fund infrastructure projects. Governments can also **be information providers**: the US Small Business Administration, for example, provides a single portal for borrowers to learn about loan requirements and participating lenders (the agency also provides loan guarantees).

Finally, governments may also **provide capital to target groups**. Many developing nations have state-owned development banks that directly lend to borrowers. One risk of such programs is crowding out private-sector financial institutions and thereby delaying development of the market. Germany’s KfW follows a more indirect model: it provides funding to commercial banks, which in turn lend to borrowers. Governments can also remove obstacles to the private sector’s participation, for instance, by providing loan guarantees, political risk insurance, or bridge financing during critical stages of a project. They can also set up public-private partnerships. In the United Kingdom, the newly created Business Finance Partnership was designed to improve the flow of credit to small and mid-sized businesses. It will combine public funds with equal or greater amounts of private capital through select private-sector financial intermediaries to lend to SMEs.

1 As of this writing, the US Securities and Exchange Commission had not yet issued guidelines for implementing this legislation.

- **Use big data to improve information flows and market monitoring.** Poor information and data collection hampered the ability of financial institutions and regulators to recognize and act on the accumulation of unsustainable debt and leverage, opaque connections between institutions, and the concentration of risks. Healthier, deeper, and more open financial markets require more granular and timely information from market participants. Policy makers can draw on new tools being deployed in the private sector to gather and analyze vast quantities of information and more closely monitor potential market risks.

GLOBAL BANKS: SEARCHING FOR NEW BUSINESS MODELS

The new environment requires large global banks to adopt a more nimble strategy.⁴⁶ Some of the benefits of developing a global footprint are eroding in the face of new regulation, and this will require a rethink of organization and operations at many institutions. Some big banks are exiting less profitable markets and shedding assets, creating new opportunities for smaller regional and national banks to fill the gaps.

- **Identify pockets of opportunity.** Despite overall slower growth in global financial assets and capital flows, a more granular assessment of the landscape will reveal potential opportunities. Overall, lending in emerging markets is projected to have robust growth, as is corporate bond issuance in many countries. In some areas, there is too much regulatory uncertainty to predict a clear outcome (for instance, Chinese households have a massive pool of savings to invest in foreign equities and bonds, but this development hinges on regulatory action). Even in markets with very little overall growth, banks with competitive skill sets may prosper.
- **Get back to basics.** There is unlikely to be a “next big thing” for banking in mature economies that will generate growth and outsized returns. Nor will reliance on market momentum be sufficient for generating growth. These new dynamics will favor a set of players that are able to get “back to basics”—winning business through superior relationship-management and credit-assessment skills that were out of fashion during the peak of the bubble. Straightforward lending, saving, and investment products will likely form a much larger share of revenue and profits in the years to come. This is a major opportunity in emerging economies, especially for those institutions that can create viable models to tap underserved mortgage and SME lending markets. In the slow-growth environment that characterizes most advanced economies, cost efficiencies also take on new importance. On this front, there is wide variation in performance across banks within the same country and across countries. This challenge does not call for simple budget cutting within departments, but rather end-to-end process redesigns to streamline back-office functions and operations.
- **Be selective in your geographic footprint.** The benefits of operating in every location around the world are eroding in the new financial era as regulatory changes proceed (see Box 3 in Chapter 2 on shifts in cross-border lending models). This is not to write the epitaph for global banking, but it is clear that banks will need to become more highly selective about the geographies and business lines in which they will compete. Such a transition is already under

⁴⁶ For a more detailed look at the challenges facing banks, see *The triple transformation: Achieving a sustainable business model, 2nd McKinsey annual review on the banking industry*, McKinsey & Company, October 2012.

way. Some banks are narrowing their focus to business lines in which they have a competitive advantage, while selling or reducing their presence in non-core businesses. Others are adopting a more regional strategy, focused on building scale and shared back-office operations in specific regions while closing far-flung branches. Overall, we expect to see more diversity in the business strategies pursued by the world's largest banks.

- **Foreign operations need to become more local, less global.** The “sudden stop” problems associated with foreign lending—and particularly the risks of foreign “suitcase” lending—have become clear to recipient countries. Responding to the vulnerabilities revealed by the financial crisis and the euro crisis, national regulators in some countries are moving to contain risk by raising capital requirements and exerting more control over the foreign banks that operate within their jurisdictions. Banks operating in foreign markets will have to be prepared to engage more deeply with local regulators and policy makers, and will need to build much stronger ties to the local market than may have been required in the past. Raising deposits and other funding locally will be advantageous whether operating a foreign branch or subsidiary.
- **Expand where others are in retreat.** Some regional and national banks outside of Europe are well-positioned to capture market share where big global banks are exiting. This could be a transformational opportunity for new players to expand in their home markets and even sustain healthy cross-border regional lending. In Asia, for instance, smaller banks from the region—and large ones from Japan—have stepped in to fill the gap in trade finance formerly provided by European banks. ANZ (Australia and New Zealand Banking Group) has undertaken nine acquisitions in recent years, including purchasing the Taiwanese bank operations of RBS and the Australian investment operations of ING. Since 2009, TD (Toronto-Dominion) Bank has undertaken 17 financial-sector acquisitions, including the banking operations of three failed Florida-based banks (in a deal assisted by the Federal Deposit Insurance Corporation), and the lending arm of Chrysler. In the next few years, expect to see significant movement in the banking league tables in many regions.
- **Mind the gaps.** Some types of borrowers—for example, SMEs or infrastructure projects—face funding shortages in the new landscape. Banks can make use of their corporate relationships and underwriting skills to play a facilitation role. For instance, some banks may be well-positioned to match up institutional investors with borrowers that need long-term equity or debt funding, or to arrange syndicated loan deals on behalf of large institutional investors. This broker role could prove critical, as many large institutional investors are seeking ways to earn a premium for providing patient capital but lack the skills to source deals directly, evaluate risks, and negotiate prices (see below). Banks may also have an opportunity to partner with governments in creating dedicated public-private lending institutions, with public subsidies for particular types of lending. In addition, there is enormous potential growth in corporate bond markets, although this avenue may require new operational models and cost structures. Finally, banks can harness the flurry of interest in new peer-to-peer web portals for both lending and equity raising, focusing on models such as aggregating and selling business invoices or providing SMEs with working capital. Expanding the range of services offered would allow banks to grow their customer base.

INSTITUTIONAL INVESTORS: GENERATING RETURNS IN A SLOW-GROWTH WORLD

Institutional investors face new challenges in earning returns in this new era. They will need new strategies to navigate uncertain, volatile financial markets amid subpar economic growth. At least four elements merit consideration.

- **Go direct in emerging markets.** With slower growth becoming the norm in advanced economies in recent years, emerging markets will produce more than 70 percent of global GDP growth through 2025.⁴⁷ Gaining exposure to this supercharged growth and achieving greater geographic diversification is essential for investors, but there is no clear-cut formula for capturing this opportunity. The shallow, illiquid financial markets in emerging economies will remain a barrier to foreign institutional investors. Providing direct equity—or debt—funding to emerging-market companies can circumvent this problem. Private equity funds are one way to invest directly in emerging markets—and providing promising companies with expertise in addition to capital can take their growth to the next level. The share of private equity capital raised for funds that target investments in emerging markets has grown steadily, rising from just 5 percent in 2000 to 15 percent in 2010. Many expect this figure to grow much larger. The largest institutional investors may also have opportunities to invest directly in companies. For instance, a group of sovereign wealth funds has joined one of Canada’s largest pensions to invest nearly \$2 billion in Brazil’s largest investment bank. Although pursuing direct deals will require significant new skills and organizational structures, some are going this route. Banks could play a valuable role in brokering such deals.
- **Transform research capabilities to spot opportunities.** The term *emerging market* is almost meaningless today, given the wide range of countries with diverse macroeconomic and political situations it encompasses. There are many attractive opportunities beyond the BRICs. But identifying the countries and sectors in which to invest adds up to a daunting research task—and most large institutional investors have not invested enough in developing this capability. The models that work for analyzing companies and risk in advanced economies will have to be reconsidered. A local presence may be required to develop a sophisticated understanding of business norms and an appreciation of the risks. Local partners can identify opportunities and help gain access to deal flow.
- **Find new sources of alpha in advanced economies.** Given the lower growth outlook in advanced economies, institutional investors will not be able to rely on market momentum (or beta) for growth. They will need to identify new sources of alpha, or returns uncorrelated to the broad market movements. Identifying these sources will require careful analysis and a consideration of each institution’s capabilities. For investors with strong quantitative skills, market-neutral strategies that hedge a variety of long and short positions might be attractive. Others may cultivate superior information and insights into specific sectors that enable identification of underpriced companies or future growth opportunities. Building these skills will be a formidable task and require major investment.

⁴⁷ *Winning the \$30 trillion decathlon*, McKinsey & Company, August 2012.

- **Become a provider of long-term finance.** With banks in deleveraging mode, this could be a pivotal moment for institutional investors, whose pools of “patient” capital could finance infrastructure and other major investment in the emerging world. Estimates show that by 2020, nine major economies alone will need to finance \$18.8 trillion annually in long-term investment to achieve moderate levels of economic growth, up from \$11.7 trillion today.⁴⁸ Banks in these countries focus mainly on short-term lending, and large international banks are cutting back on longer-maturity project finance. With the appropriate policy changes, investors such as pensions and sovereign wealth funds with long time horizons could command new liquidity premiums, earning extra returns for providing long-term funding.

□ □ □

More than four years after the financial crisis erupted, the world is still absorbing its aftershocks. Our analysis of global financial markets reveals an uneven recovery and an uncertain outcome. But despite lingering wariness after the sharp rise and fall of assets and capital flows associated with the crisis, ours is still a world that needs investment and growth. The proposals offered here would help correct the excesses of the past while ensuring a stable flow of financing to the real economy—allowing financial deepening and globalization to resume in a healthier direction.

48 *Long-term finance and economic growth*, Group of Thirty, February 2013.

Appendix: Technical notes

These technical notes provide more detail on some of the definitions and methodologies employed in this report. We address the following points:

1. Definition of financial assets
2. Country classifications
3. Financial deepening by sector
4. Correlations between financing to the household and corporate sectors and economic growth
5. Definitions of cross-border investments and capital flows
6. Volatility of cross-border capital flows

1. DEFINITION OF FINANCIAL ASSETS

Our definition of financial assets includes securitized and non-securitized loans, corporate and government bonds as well as other fixed-income debt securities, and the equity market capitalization of listed companies. We exclude cash, financial derivatives, and deposits, as well as physical assets such as real estate and gold. We also exclude the equity in privately held companies. We take the view of funds raised by households, corporations, and governments, regardless of the nationality of the holder of the asset. For instance, our measure of US corporate bonds captures bonds issued by US-resident companies, not the value of corporate bonds owned by US investors. Full definitions, including our method of valuing these assets, are listed below:

- **Non-securitized loans:** The face value of on-balance-sheet loans by banks and other financial institutions to households, non-financial corporations, and, in some cases, governments. Non-securitized loans include both short-term and long-term loans. We exclude interbank lending, as we consider this a function of intermediation.
- **Asset-backed securities:** Loans moved off balance sheet by banks, packaged into outstanding mortgage- or asset-backed securities. We report the face value of these securities.
- **Corporate bonds:** Short- and long-term bonds issued by non-financial corporations, including commercial paper. We value bonds at their book or face value and include all bonds issued in local and foreign currencies.
- **Financial bonds:** Short- and long-term bonds issued by banks and other financial institutions. We value bonds at their book or face value, and include all bonds issued in local and foreign currencies. In addition to bonds, we include other financial debt securities such as mortgage-backed securities or asset-backed securities at their market value.

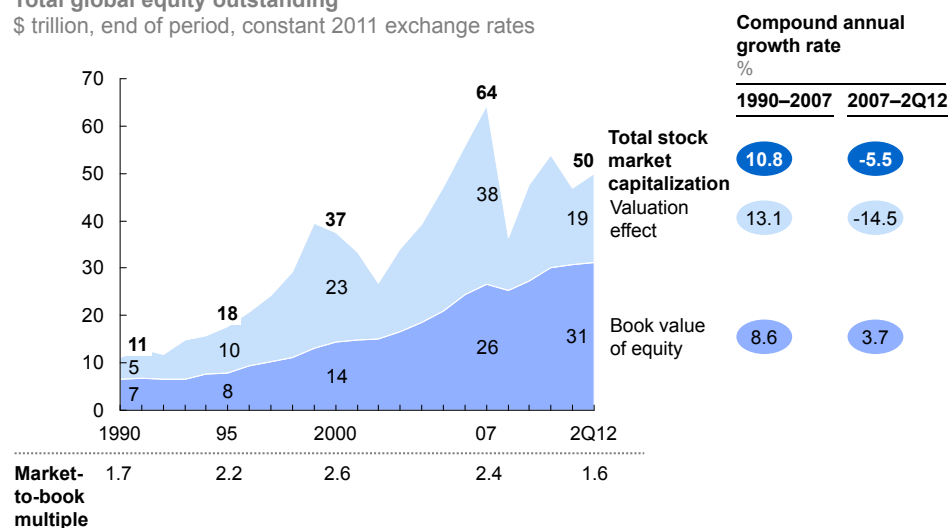
- **Government bonds:** Short- and long-term bonds issued by all levels of government (state, local, municipal). We value bonds at their face value.
- **Equity:** Market capitalization of companies listed on stock markets. We differentiate the book value (the market capitalization that is accounted for on a company's balance sheet) from the valuation effect (the remainder of total market value) by using global data from McKinsey's Corporate Performance Analysis Tool (CPAT), which aggregates information from the balance sheets of more than 30,000 publicly traded companies with annual revenue over \$100,000 to develop price-to-book estimates across countries (Exhibit A1).

Exhibit A1

Equity valuation effects drive the fluctuation of equity market capitalization

Total global equity outstanding¹

\$ trillion, end of period, constant 2011 exchange rates



¹ Calculated based on yearly market-to-book multiples for more than 30,000 corporations.

NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Corporate Performance Analysis Tool; Standard & Poor's; McKinsey Global Institute analysis

We examine financial assets on a country-level basis. We build country-level statistics from a large group of sources, including the International Monetary Fund (IMF), the Bank for International Settlements (BIS), the World Bank, Standard & Poor's, and the Securities Industry and Financial Markets Association (SIFMA), as well as McKinsey's proprietary Corporate Performance Analysis Tool and Global Banking Pools.

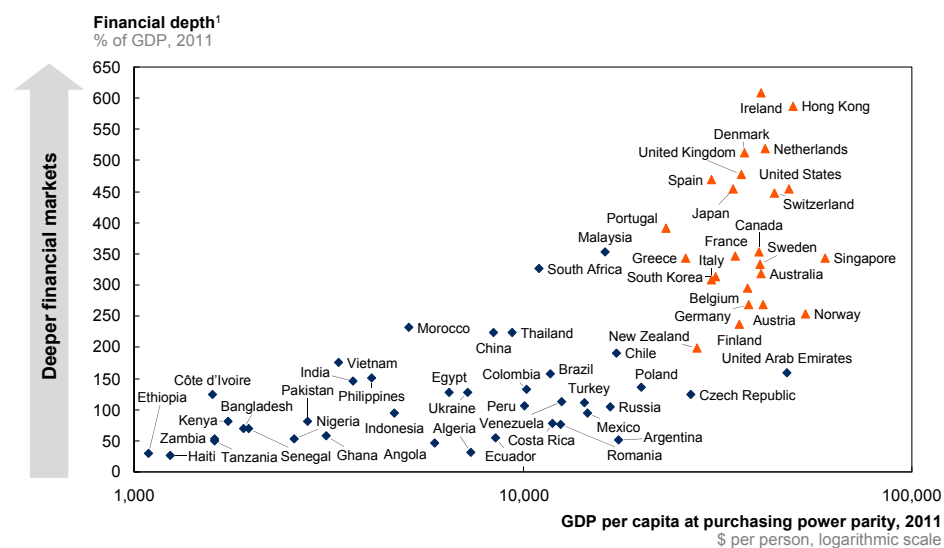
For a multiyear view of financial assets, we value financial assets both in nominal terms and in constant 2011 exchange rates. The latter method removes currency valuation changes over time; growth rates are the same as in local currency. We express the value of all the assets in US dollars.

To compare the size of financial systems, we calculate **financial depth** at the country, regional, and global levels. This is calculated by dividing the financial assets of a country or region, as defined above, by its GDP. There are large variations across countries, and in general countries with higher income levels have deeper financial systems (Exhibit A2).

Exhibit A2

Capital markets in developing countries still have significant room for growth

◆ Emerging
 ▲ Developed



1 Calculated as country's debt and equity outstanding divided by country's GDP.

SOURCE: International Monetary Fund; McKinsey Global Institute Financial Assets Database

2. COUNTRY CLASSIFICATIONS

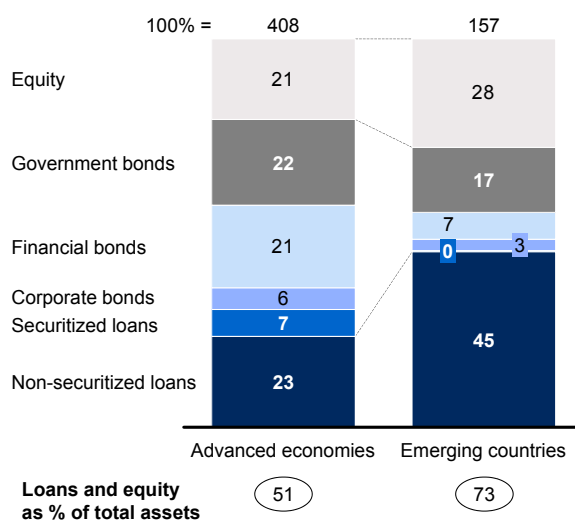
For some analyses, we classify each of the 183 countries in our sample as either a developing or an advanced economy. We recognize that this is a simplistic approach, given complex differences in both national economies and financial systems. Nonetheless, this simplification is at times useful in illustrating differences in financial development across countries (Exhibit A3).

Exhibit A3

Financial assets in emerging markets are heavily concentrated in equity and loans, while advanced economies contain more debt securities

Financial depth, 2Q12

% of regional GDP



SOURCE: McKinsey Global Institute Financial Assets Database

For the advanced economies group, we use the terms *developed country*, *advanced economy*, and *mature economy* interchangeably throughout this report. This group includes Western Europe (Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom), the United States, and Japan, as well as Australia, Canada, Hong Kong, New Zealand, Singapore, South Korea, and Taiwan. These countries typically have GDP per capita above \$25,000, measured at purchasing power parity.

For the developing economy group, we use the terms *emerging markets*, *emerging economies*, and *developing countries* interchangeably throughout this report. All other nations not listed in the paragraph above fall into this category. This group is quite diverse and includes the Middle Eastern oil exporters, whose per capita GDP is higher than some advanced economies. However, we include them in the emerging market group because their GDP is highly concentrated in resource sectors and their financial systems have limited financial depth and diversity.

Aside from a few large economies, we often classify countries by a combination of their geographic location and level of development for some analyses. For instance: Latin America, Western Europe, Central and Eastern Europe and Commonwealth of Independent States, Africa, Middle East, Emerging Asia, and Other developed economies. Though these classifications are generally straightforward, a few clarifications are needed: we include the countries of North Africa in Africa, Turkey with Central and Eastern Europe, and the Caribbean with Latin America. The Commonwealth of Independent States (CIS) comprises all countries that were part of the former Soviet Union. Exhibit A4 shows the list of countries in each region.

Exhibit A4

Classification of 183 countries into regions and development level

	Europe, Middle East, and Africa	Americas	Asia
Developed countries (29)	Western Europe <ul style="list-style-type: none"> ▪ Austria ▪ Belgium ▪ Cyprus ▪ Denmark ▪ Finland ▪ France ▪ Germany ▪ Greece ▪ Iceland ▪ Ireland ▪ Italy ▪ Luxembourg ▪ Malta ▪ Netherlands ▪ Norway ▪ Portugal ▪ Spain ▪ Sweden ▪ Switzerland ▪ United Kingdom 	United States	Japan¹
		Other Developed <ul style="list-style-type: none"> ▪ Canada 	<ul style="list-style-type: none"> ▪ Australia ▪ Hong Kong ▪ New Zealand ▪ Singapore ▪ South Korea ▪ Taiwan
Emerging countries (154 countries)	CEE and CIS² <ul style="list-style-type: none"> ▪ Czech Republic ▪ Hungary ▪ Kazakhstan ▪ Poland ▪ Romania ▪ Russia ▪ Serbia ▪ Slovakia ▪ Turkey ▪ Ukraine Plus 20 other countries 	Latin America³ <ul style="list-style-type: none"> ▪ Argentina ▪ Brazil ▪ Chile ▪ Colombia ▪ Ecuador ▪ Haiti ▪ Jamaica ▪ Mexico ▪ Panama ▪ Peru ▪ Venezuela Plus 21 other countries 	China
	Africa <ul style="list-style-type: none"> ▪ Algeria ▪ Angola ▪ Egypt ▪ Ghana ▪ Kenya ▪ Morocco ▪ Nigeria ▪ Senegal ▪ South Africa ▪ Tunisia Plus 40 other countries 		India⁴
	Middle East <ul style="list-style-type: none"> ▪ Bahrain ▪ Iran ▪ Iraq ▪ Israel ▪ Jordan ▪ Kuwait ▪ Lebanon ▪ Oman ▪ Qatar ▪ Saudi Arabia ▪ Syria ▪ United Arab Emirates ▪ Yemen 		Other Emerging Asia <ul style="list-style-type: none"> ▪ Bangladesh ▪ Cambodia ▪ Indonesia ▪ Laos ▪ Myanmar ▪ Pakistan ▪ Philippines ▪ Sri Lanka ▪ Thailand ▪ Vietnam Plus 17 other countries

¹ Sometimes grouped into Other Developed.

² Central and Eastern Europe (CEE) and Commonwealth of Independent States (CIS).

³ Including Caribbean.

⁴ Sometimes grouped into Other Emerging Asia.

SOURCE: McKinsey Global Institute Financial Assets Database; McKinsey Global Institute analysis

3. FINANCIAL DEEPENING BY SECTOR

To gain a more nuanced understanding of sources of financial deepening, we calculate the financing available for different sectors of the economy: households and non-financial corporations, financial institutions, and government. We define these as follows:

- **Household and corporate sectors:** The financial depth of these sectors represents the total financing available to households and non-financial companies intermediated through banks and capital markets. For households, this includes mortgages and other loans from banks and other financial institutions, such as auto loans, student loans, credit card debt, and home equity lines of credit. For non-financial corporations, we include loans from banks and non-bank financial institutions, including lines of credit, commercial paper, and all corporate bonds. We also include the equity market capitalization of listed non-financial corporations.
- **Financial institutions:** This category includes the tradable securities issued by banks and other financial institutions to fund their own operations. It comprises commercial paper, bonds, and asset-backed securities issued by financial institutions; we also include the equity market capitalization of financial institutions listed on stock exchanges. Interbank loans are excluded from our database and so are not included here.
- **Government:** This category includes the tradable securities issued by governments at all levels (local, state or provincial, and federal) to fund their activities. We measure this as the face value of government bonds outstanding. We exclude the bonds issued by state-owned companies, and for most countries, we exclude loans to government. The conventions on measuring government debt vary by country, so our figures may differ from other publicly reported sources. For instance, we exclude liabilities of one branch of government to another. For the United States, this excludes the amounts owed by the federal government to the Social Security system, as these are non-tradable forms of debt and differ from figures reported by the IMF. For some emerging-market economies in our database that lack a government bond market but have substantial amounts of loans, we include them (less the amount owed to multilateral organizations).

4. CORRELATIONS BETWEEN FINANCING TO THE HOUSEHOLD AND CORPORATE SECTORS AND ECONOMIC GROWTH

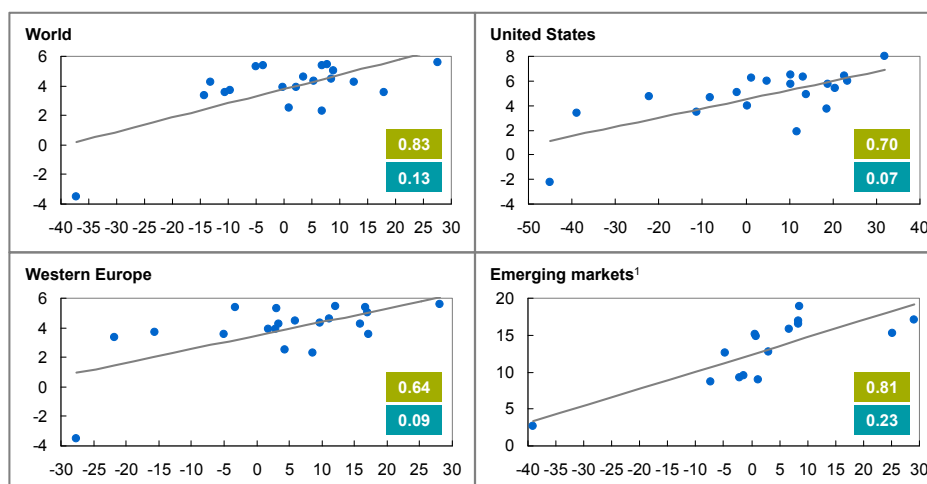
In Chapter 1 we discuss the correlation between financing provided to households and non-financial corporations and GDP growth. The simple bivariate correlations shown in Exhibit A5 demonstrate a positive relationship between the two variables: the change in financing to this sector (relative to GDP) in one period is positively correlated with faster GDP growth in the next period. This relationship holds for advanced economies and emerging markets, although the impact of additional financing on GDP growth is much higher in emerging markets. In emerging markets, every 10 percentage point increase in financing for households and corporations raises GDP growth by 2.3 percentage points, compared with 0.7 for the United States or 0.9 for Western Europe.

Exhibit A5

**The decline in financial depth matters:
GDP growth is correlated with private-sector financing**

■ Correlation
■ Slope of regression line

X axis: Household and corporate debt and equity as a share of GDP annual change (t-1)
Y axis: Nominal GDP growth (t) (%)



¹ Emerging markets excluding China shows correlation of 0.66 and a slope of 0.20.
NOTE: Not to scale.

SOURCE: McKinsey Global Institute Financial Assets Database; McKinsey Global Institute analysis

We further test this relationship by using multivariate regression analysis to control for other variables that may explain real GDP growth. These include population growth, human capital development, political and macroeconomic stability, government spending, and the openness of an economy to trade. We also allow for a non-linear relationship between financing for the real economy and GDP growth by introducing a quadratic term on financing to households and corporations. The model is estimated using panel data for 112 countries using annual observations from 1990 to 2011. We use fixed effects to allow for a country-specific error term component. Exhibit A6 shows the dependent and independent variables used in our regression analysis.

Exhibit A6

Dependent and independent variables used in regression analysis

■ Primary variables of interest

All variables measured by country, 1990–2011

Dependent variable	Annual growth rate for real GDP	Expected sign of coefficient	Estimated sign of coefficient	Statistically significant? (99% level)
Independent variables	Financing to households and non-financial corporations relative to GDP at year t-1 (%)	Positive	Positive	Yes
	Financing to households and non-financial corporations relative to GDP at year t-1; squared	Negative	Negative	Yes
	Working-age population growth (% change)	Positive	Positive	Yes
	Human capital (% change)	Positive	Positive	Yes
	Political and macroeconomic stability index	Positive	Positive	Yes
	Government spending	Ambiguous	Negative	Yes
	Openness of an economy to trade	Positive	Positive	Yes

SOURCE: McKinsey Global Institute analysis

The multivariate regression with a quadratic form model we use is:

$$\Delta RGDP_{(t,t-1)} = K_0 + K_1 FDRE_{t-1} + K_2 FDRE_{t-1}^2 + CV_{t,t-1} + u_{i,t}$$

$$u_{i,t} = v_{i,t} + \mu_i$$

The definition of each variable is as follows:⁴⁹

- K_0 is a constant term.
- $\Delta RGDP_{(t,t-1)}$ is the real GDP growth rate between years $t-1$ and t , expressed in percentage points.
- $FDRE_{t-1}$ is the financing to households and non-financial corporations relative to GDP at year $t-1$ (i.e., lagged for one year). This is expressed in percentage points.
- $FDRE_{t-1}^2$ is the quadratic component of financing to households and non-financial corporations. This variable allows for a nonlinear relationship between financing and growth. In particular, if the benefits diminish as households and non-financial companies accumulate more debt, then the sign on this coefficient would be negative.

49 The data sources are as follows: RGDP variable = International Monetary Fund, McKinsey Global Growth Model; FDRE = McKinsey Global Institute Financial Assets Database; POP = World Development Indicators, International Labour Organisation; HCAP = McKinsey Global Growth Model; GS = World Development Indicators, McKinsey Global Growth Model; PR = Political Risk Services (PRS) Group; TR = World Development Indicators, McKinsey Global Growth Model.

- $CV_{t,t-1}$ comprises the set of control variables:

$$CV_{t,t-1} = K_p \Delta POP_{t,t-1} + K_h \Delta HCAP_{t,t-1} + K_g GS_t + K_p PR_t + K_T TR_t$$

where:

- $\Delta POP_{t,t-1}$ is the growth of the working-age population, defined as people within the 15-64 age range. We express this variable in percent.
- $\Delta HCAP_{t,t-1}$ captures improvements in the human capital of a country. Human capital is defined as employed population multiplied by average years of education. We then calculate its improvements with the growth rate between the years $t-1$ and t in percentage points.
- GS_t is the government spending in year t . We express this variable as percentage of the country GDP in the same year.
- PR_t is the political and macroeconomic risk index at year t measured. This variable is an index developed by the Political Risk Services (PRS) Group with a range of 0 to 1, where a higher value indicates less risk. It measures political risk by following 17 risk components that capture turmoil, investment restrictions, restrictions on foreign trade, domestic economic problems, and international economic problems.
- Finally, TR_t reflects the openness to trade of a country at year t . It is calculated as the sum of imports and exports, expressed as percentage of GDP.

The error term $u_{i,t}$ consists of two parts: the random error ($v_{i,t}$), and the individual effect, or time invariant effect (μ_i).

This model performs very well in explaining the real GDP growth of a country, and the amount of financing to households and corporations is a significant explanatory variable. We also find a diminishing benefit to financing over time, as shown by the negative (although very small) coefficient on the quadratic term.

The estimated coefficients are shown in Exhibit A7. The basic model, shown in the left column, shows a positive relationship between the level of financing to the real economy and the country's GDP growth rate. On average, a 10 percentage point increase in financing is associated with 0.12 percentage point faster real GDP growth. The negative sign in the quadratic term indicates that the relationship eventually becomes negative, although that turning point comes only when financing of corporations and households reaches 300 percent of GDP—higher than observed in most countries in our sample. Finally, we test the robustness of this model in two ways. First, we perform forward stepwise estimation of the coefficients and find that the linear and quadratic term coefficients are significant in all specifications. Second, we test the model for the independent variable GDP per worker and obtain similar results.

These results are generally similar to that of previous academic research. (For instance, see the papers by Levine, 2005; Cechetti and Kharroubi, 2012; and Beck et al., 2009.) Our analysis adds to this literature in that we use a larger sample size of countries and a more precise metric for financing for households and corporations. Much of the previous work relies on a metric of private-sector debt provided by the World Bank in the World Economic Indicators, but this

metric includes debt of the financial sector and excludes equity financing to corporations. These results therefore contribute to the existing literature.

Exhibit A7

Regression analysis coefficients

Dependent variable	Real GDP annual growth rate					
Independent variables	Full model	Step 1	Step 2	Step 3	Step 4	Step 5
Financing to households and corporations relative to GDP, (t-1)	0.012	0.0182	0.0185	0.0191	0.0183	0.0129
Financing to households and corporations relative to GDP, (t-1) squared	-0.00002	-0.00003	-0.00003	-0.00003	-0.00003	-0.00002
Working-age population growth	0.1177		0.478	0.0522	0.0891	0.0896
Human capital change	0.3797			0.4481	0.4166	0.3814
Government spend	-0.0691				-0.0692	-0.0700
Political and macroeconomic risk	10.002					10.1209
Openness to trade	0.8378					
Constant term	-8.0535	0.7603	0.2589	-0.8275	-0.7027	-7.8751
Number of observations (112 countries, 20 years ¹)	2028	2028	2028	2028	2028	2028

¹ Not all years have observations for all the countries.
NOTE: All coefficients are significant at 99 percent level (p-values <0.01).
SOURCE: McKinsey Global Institute analysis

5. DEFINITIONS OF CROSS-BORDER INVESTMENTS AND CAPITAL FLOWS

We use cross-border investment and capital flows as our primary metrics for quantifying financial globalization. Cross-border capital flows are defined as the annual net capital inflows and outflows between a country and the rest of the world. Net inflows are defined as the net new purchases made by foreigners of a country's domestic assets (or the sum of all new investments made by foreigners in a given year less the sales of previous investment assets). Positive inflows add to a country's cross-border liabilities. Negative inflows show that foreigners are net sellers of the country's assets and that they are withdrawing money from the country.

Capital outflows from a country are defined as the net new purchases of foreign financial assets by residents of a country. Positive capital outflows result in an increase in the foreign assets of the country. Negative capital outflows indicate that domestic investors are net sellers of foreign assets.

Our data on cross-border investments and capital flows draw mainly from the IMF's balance of payments data and the consolidated banking statistics of the BIS. It is worth noting that total global capital inflows and outflows do not match exactly for most years. For instance, in 2011, capital outflows were 1.3 percent higher than inflows. This reflects measurement errors in national data collection and gray market transfers of money across borders, as well as the fact that the sample of reporting countries is not exhaustive.

Cross-border capital flows

Capital flows comprise the following asset classes:

- **Foreign direct investment:** Investments that establish at least a 10 percent stake in a foreign entity. Any subsequent lending between the direct investor and the capital recipient is also captured in this category.
- **Equity:** Any equity or share purchased by an investor in another country that gives the investor no more than a 10 percent stake.
- **Bonds:** Any tradable debt security that is purchased by a foreign investor. This includes public and corporate (both financial and non-financial) bonds, mortgage-backed securities, other asset-backed securities, and collateralized debt obligations.
- **Loans and deposits:** Any other assets not classified in the above three categories. Includes primarily loans, currency, and deposits, as well as a small share of trade credit.

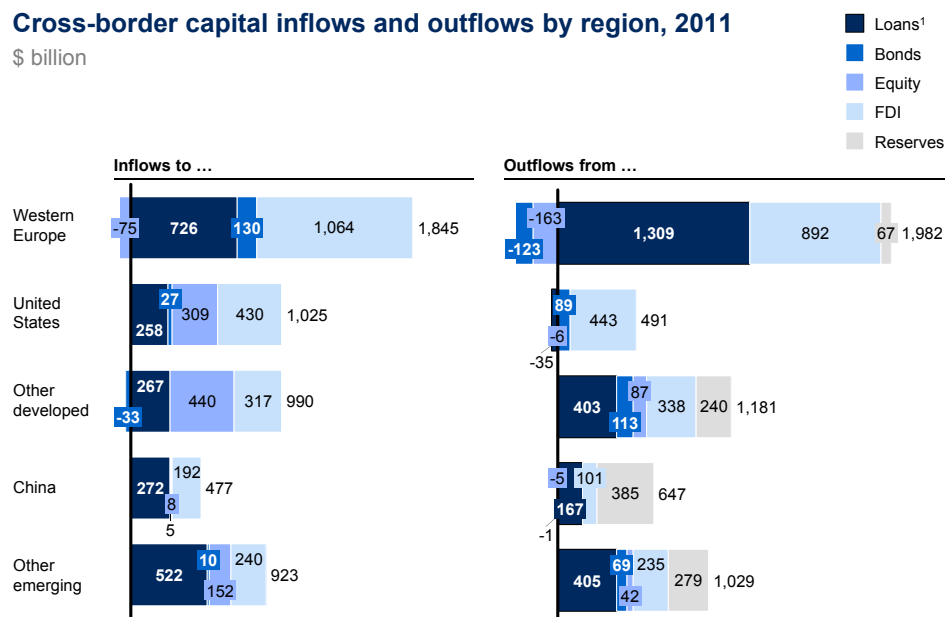
In addition to these four classes, data on outward investments capture a fifth category: **reserve assets**, consisting of assets acquired or held by monetary authorities in a foreign currency. Reserve assets are distinguished from the other four classes to avoid double-counting.

Exhibit A8 shows the capital inflows and capital outflows by region and asset type for 2011, the latest year for which all national data are reported. (In this report, our 2012 figures for capital flows are estimates that will be revised as fourth quarter data are reported.)

Exhibit A8

Cross-border capital inflows and outflows by region, 2011

\$ billion



¹ Includes primarily loans, currency and deposits, as well as a small share of trade credit.

NOTE: Numbers may not sum due to rounding.

SOURCE: IMF Balance of Payments; McKinsey Global Institute analysis

Foreign investment assets and liabilities

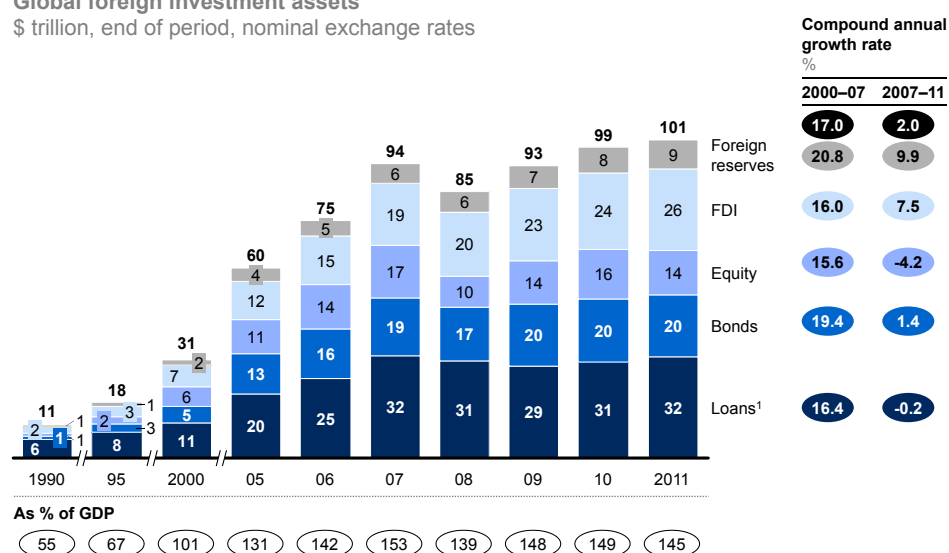
The term *cross-border investments* as used in this report includes foreign financial assets and liabilities. It excludes real estate and other physical assets. Foreign financial assets are foreign-issued financial assets owned by the households, companies, or government of the country. The five types of foreign financial assets correspond to capital outflows, as defined above. They are FDI, equity securities, debt securities, loans and deposits, and foreign exchange reserve assets owned by a country's central bank or other monetary authority. Foreign financial liabilities are financial assets that are issued by a country and owned by foreign investors. The four types of foreign liabilities are the same as the capital inflows defined above: FDI, equity securities, debt securities, and lending/deposits. Exhibit A9 shows total global foreign financial assets from 1990 to 2011.

Exhibit A9

The stock of global foreign investment assets reached \$101 trillion in 2011

Global foreign investment assets

\$ trillion, end of period, nominal exchange rates



¹ Includes primarily loans, currency and deposits, as well as a small share of trade credit.

NOTE: Excludes assets from offshore financial centers. Numbers may not sum due to rounding.

SOURCE: IMF Balance of Payments; McKinsey Global Institute analysis

Bilateral investment patterns

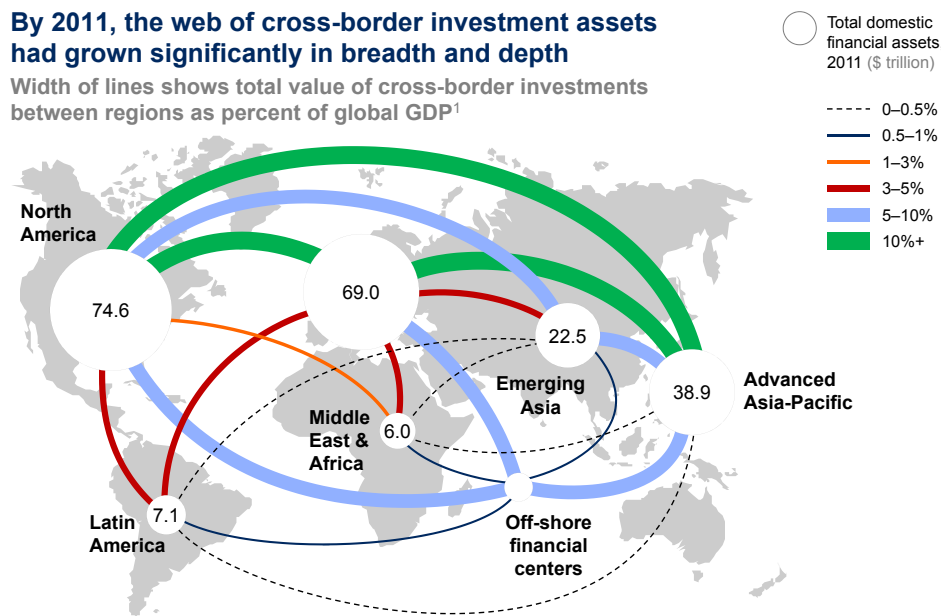
We have also built a database of bilateral investment relationships that shows the cross-border investments between individual pairs of countries and regions. It contains data on the foreign assets owned by investors in more than 140 countries and includes investments across more than 200 countries and territories. The assets tracked include equity securities, debt securities, FDI, and loans and deposits. This database shows the investments of country A in country B and the investment assets of country B in country A. We built this database based on data from the IMF's balance of payments, the Bank for International Settlements, the IMF's Coordinated Portfolio Investment Survey, the IMF's Coordinated Direct Investment Survey, the OECD, national sources, and the Heritage Foundation's China Global Investment Tracker. We identify offshore financial centers in our bilateral investment relationships database as small economies with large inflows and outflows of capitals. These include Aruba, Bahamas, Barbados, Bermuda, Cayman Islands, Curacao, Gibraltar, Guernsey, the Isle of Man, Jersey, Mauritius, the Netherlands Antilles, and Panama.

Exhibit A10 shows the cross-border investment assets between different regions of the world as of the end of 2011, the latest available data.

Exhibit A10

By 2011, the web of cross-border investment assets had grown significantly in breadth and depth

Width of lines shows total value of cross-border investments between regions as percent of global GDP¹



¹ Includes total value of cross-border assets; GDP in 2011 = \$70 trillion.
NOTE: Only select lines are shown.

SOURCE: McKinsey Global Institute Bilateral Foreign Investment database

Foreign bank claims

In Chapter 2 we analyze trends related to foreign bank claims, as reported by the BIS. The following definitions and clarifications apply:

- We analyze the consolidated bank claims from one country on another (or into a particular region). The term *consolidated* addresses the treatment of foreign subsidiaries. In this data, the nationality of any bank operation is determined by the location of its headquarters. Hence, country A's bank subsidiary operating in country B is considered a bank of country A; any loan issued by this subsidiary to a resident of country B is therefore a foreign claim from A to B. This holds for both bank branches and subsidiaries in foreign countries. Unlike a subsidiary, a branch office is not a separate legal entity of the parent corporation. This convention differs from the system of national accounts, in which the nationality of an entity is determined by its place of operation. The system of national accounts is followed by our data on capital flows and foreign investment assets and liabilities and by most of our types of financial assets. Bank claims include all loans, securities, and other assets owned by the banks. Across most regions covered by the BIS data, more than 75 percent of such claims are loan assets.
- BIS data are available at the country level for 25 reporting countries. While most advanced economies (with the notable exception of South Korea and Hong Kong) report their banking statistics to the BIS, only five emerging countries do so: Brazil, Chile, Mexico, Panama, and Turkey. Therefore we use this data source primarily to study the activities of banks in advanced economies. Nonetheless, for the countries that do report banks, this statistic provides detailed information on the location of their cross-border claims,

as the coverage of counterparties expands to more than 200 countries and territories, essentially covering the entire world. The BIS consolidated statistic therefore contains detailed and comprehensive information on the global reach of banks in advanced economies.

6. VOLATILITY OF CROSS-BORDER CAPITAL FLOWS

In Chapter 2 we analyze the volatility of cross-border capital flows. We find that foreign direct investment, equities, and bonds are more stable than foreign lending, and especially cross-border lending. This relationship holds for both emerging and advanced economies.

We relied on bank claims data from the BIS and on FDI, bond, and equity data from the IMF's Balance of Payments statistics. For FDI and portfolio debt and equity, we used quarterly data on inward capital flows from 2000 to 2011 for 28 developed countries and 120 emerging countries. The BIS data report foreign bank claims as stocks rather than flows, so we estimate flows by taking the difference in claims from the perspective of the borrower; these data are available for more than 200 countries.

To measure volatility, we calculate the coefficient of variation, defined as the sample standard deviation divided by the sample mean. This coefficient is widely used in the academic literature because it allows for comparison across samples with different means, as is the case with capital flows of different asset classes. In the analysis shown in the chapter, we sum together all capital flows to emerging markets and those to advanced economies separately, and calculate the standard deviation and mean for each series using quarterly data.

Our analysis, discussed in Chapter 2, shows that FDI is the least volatile type of capital for both emerging markets and developed countries, while short-term bank claims are the most volatile. Furthermore, when we look at capital flows reversals (flows turning from positive to negative) and surges (flows increasing by at least two standard deviations), we confirm that bank claims show the largest frequency of all reversals and surges (Exhibit A11).

We find that cross-border lending is also the most volatile type of flow when we look at individual countries. Exhibit A12 shows the results for three sample countries: South Korea, Brazil, and South Africa. In all three, cross-border lending flows are significantly more volatile than other capital flows. There are exceptions, however. India, for example, is a noticeable exception, as it shows a higher coefficient of variation for bond flows than bank lending flows (5.3 vs. 1.2) since 2009. These results are consistent with the academic literature, which finds that cross-border bank lending is the most volatile type of flow.⁵⁰

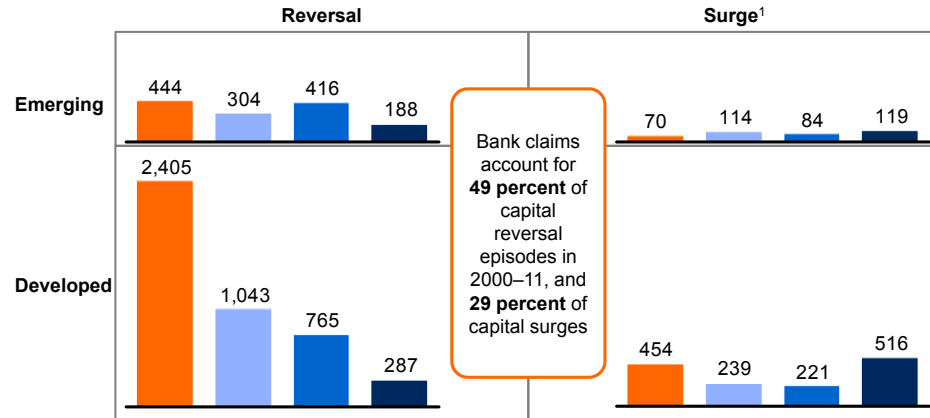
50 See, for instance, Forbes, *Debt- and equity-led capital flow episodes*, August 2012.

Exhibit A11

Bank flows have more episodes of capital reversal and surges than other asset classes

Events of capital flow reversals and surges, by type of asset
 Number of instances based on quarterly data, 2000–11

- Bank claims²
- Bonds
- Equity
- FDI



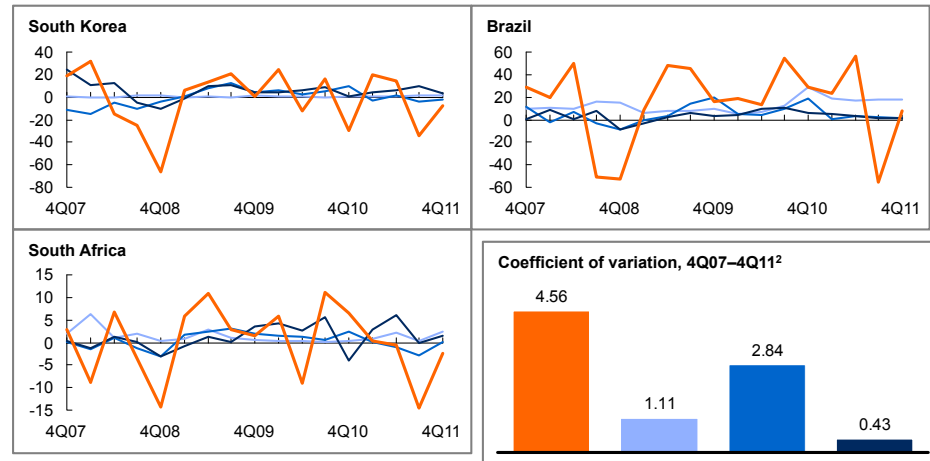
1 Defined as an inflow that is at least two standard deviations higher than the average quarterly inflows five years leading to the surge.
 2 Bank net acquisition of cross-border loans (~80%) and other debt assets (~20%) in emerging and developed economies.
 NOTE: Sample includes 29 developed markets and 120 emerging markets.
 SOURCE: Bank for International Settlements; International Monetary Fund; McKinsey Global Institute analysis

Exhibit A12

Bank claims are the most volatile type of cross-border flow for selected countries

Cross-border capital inflows to select countries, by type of asset
 \$ billion, nominal exchange rates

- Bank claims¹
- Bonds
- Equity
- FDI



1 Foreign bank net acquisition of cross-border loans and other debt assets in select countries.
 2 Calculated on the quarterly inflow to South Korea, Brazil, and South Africa.
 NOTE: Not to scale.
 SOURCE: Bank for International Settlements; International Monetary Fund; McKinsey Global Institute analysis

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