McKinsey Global Institute

$118 Trillion and Counting:

Taking Stock of the World's Capital Markets

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From time to time the institute issues public reports. These reports are issued at the discretion of MGI's director and its McKinsey Advisory Board when they conclude that the institute's international perspective and its ability to access McKinsey's knowledge of industry economics enable it to provide a valuable fact base to policy debates. The McKinsey Advisory Board is made up of McKinsey partners from Europe, the Pacific Basin, and the Americas.

The institute's staff members are drawn primarily from McKinsey's consultants. They serve 6- to 12-month assignments and then return to client work. MGI also commissions leading academics to participate in its research. The McKinsey Global Institute is based in San Francisco and has a presence in Washington, DC, New York and Shanghai. MGI research fellows are based around the world as needed for individual research projects.

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Preface

This report is the end product of a year-long project by the McKinsey Global Institute (MGI), working in collaboration with our colleagues in McKinsey offices and practice groups around the world. This project is the latest in a decade-long series of MGI research efforts on the global capital market, which have produced a best-selling book—*Market Unbound* by Lowell Bryan and Diana Farrell (1996)—several widely discussed articles and reports, and ongoing dialogues with governments, financial institutions, and opinion leaders.

The global capital market is an integral part of MGI's research agenda focused on informing the transition to a global economy. Among the three most important types of markets—those for capital, products, and labor—the global capital market is the farthest along the road to true global integration (marked by the operation of an international law of one price) and the one of the three that could best stake a claim to being an independent, motive force. The global capital market is thus a critical driver of growth and wealth creation.

Tim Shavers, a senior expert with MGI and McKinsey's Strategy Practice, worked closely with me to provide leadership to this project and to MGI's other research efforts on the global capital market. Aneta Marcheva Key, an engagement manager in our Global Financial Institutions Practice based in San Francisco, managed the project team, playing a critical role in structuring the analysis, overseeing the research, and crafting this report. The full-time project team included: Ravi Arulanantham, a senior associate from the Cleveland office;

Maria McClay, a business analyst from the New York office; and Luka Repansek, a fellow associate from the Zagreb office. Essential research support was provided by Tim Beacom, MGI's dedicated research and information specialist, and Moira Sofronas, a knowledge professional in McKinsey's North America Knowledge Center. The team also collaborated with MGI fellows conducting research on related issues in the global capital market: Sacha Ghai, an engagement manager in our Global Financial Institutions Practice based in Toronto; Ezra Greenberg, a senior knowledge professional and leader in the Firm's North America Knowledge Center; Piotr Kulczakowicz, a senior knowledge professional in McKinsey's Strategy Practice based in Washington, D.C.; Carlos Ocampo, a knowledge professional in McKinsey's Brussels Knowledge Center; and Yoav Zeif, a senior associate from the Tel Aviv office. Terry Gatto, my executive assistant, and Denise Augenblick, our team assistant, provided critical administrative support.

We have benefited enormously from the extensive and thoughtful input received from our Academic Advisory Board members. Our board included Martin Baily, senior advisor to MGI and senior fellow at the Institute for International Economics and formerly chief economic advisor to President Clinton; Richard Cooper, professor of international economics at Harvard University; and Ken Rogoff, professor of economics and public policy at Harvard University and former chief economist at the International Monetary Fund. While building upon the methodologies and findings developed by MGI over the past decade, this project tackled new approaches and issues as well. We are heavily indebted to our advisors for their excellent contributions in helping develop our approach and conclusions.

As always, the findings and conclusions draw from the unique perspectives that our McKinsey colleagues bring to bear on the issues and countries researched here. These perspectives are a product of intensive client work with the world's leading firms and financial system players, and offer a powerful window on the evolution of the global capital market. As with all MGI projects, this work is independent and has neither been commissioned nor sponsored in any way by any business, government, or other institution.

Our aspiration is to provide a fact base for better decision making and contribute to the public debate on the evolution of the global capital market, its role in global economic integration, and its implications for business leaders, investors, and policy makers.

Diana Farrell
Director, McKinsey Global Institute
February 2005

Executive Summary

Money makes the world go around. The global capital market has never been larger, more dynamic, or more diverse—nor its power greater to shape the wealth of nations. Understanding how the global capital market is evolving is essential for CEOs and CFOs raising capital, financial institutions seeking to shape the market, policy makers tasked with regulating it, and investors seeking to profit from it.

To develop such an understanding, the McKinsey Global Institute conducted an in-depth research effort into the global capital market and created a comprehensive database of the financial assets of more than 100 countries since 1980. Together, these assets comprise the *global financial stock*, or financial capital available for intermediation. Several key findings emerge.

First is the sheer size and breadth of the market. We calculate that the global financial stock now totals more than $118 trillion and is on pace to exceed $200 trillion by 2010. Just as important, the global financial stock has grown faster than world GDP, indicating that financial markets are becoming deeper and more liquid. The lion's share of this growth in the global financial stock has come from a rapid expansion of debt—a trend with both positive and negative implications, as we discuss in this report.

We also find that the roles of major countries and regions are in flux. The United States boasts nearly 40 percent of global financial stock and continues to act as the hub of the global capital market. Europe, however, is catching up, gaining market share and depth as the European Union expands and a pan-European

financial system develops. Meanwhile, Japan is fading fast, while China rises rapidly in importance. Across countries and regions, cross-border capital flows and holdings of financial assets continue to grow rapidly, linking individual financial markets together and creating an increasingly integrated global capital market, with the US dollar and US markets at its core.

We briefly outline these findings below. Readers interested in our detailed findings and analyses are directed to the global and regional chapters of this report. Those interested in our analytic approach and sources are directed to the introduction, appendix, and bibliography at the end of this report.

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$118 TRILLION AND COUNTING—GLOBAL FINANCIAL STOCK NOW THREE TIMES THE SIZE OF WORLD GDP AND GROWING FASTER

1. The total value of the global financial stock—including bank deposits, government and private debt securities, and equities—now stands at $118 trillion, up from $53 trillion in 1993 and just $12 trillion in 1980. Simple extrapolations would have the market exceeding $200 trillion by 2010 (Exhibit 1).

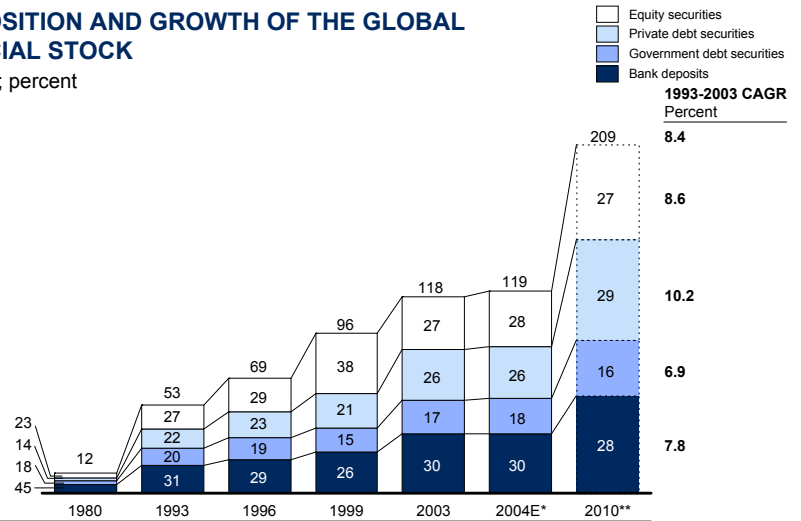
2. An important measure of the global capital market's development is its *depth*, or the ratio of the global financial stock to the size of the underlying global economy, as measured by world gross domestic product (GDP). Over the last twenty years, the depth of the global capital market has tripled: the global financial stock is now roughly three times the size of world GDP, while in 1980 the two were the same size.

3. Financial deepening appears likely to continue for the foreseeable future. The global financial stock has grown faster than the underlying economy over the long term—since at least 1980 when our data series begins. Moreover, there are no apparent near-term limits to continued deepening: the deepest countries—the US and the UK, for instance—continue to grow deeper, while many fast-growing economies—India and the countries of Eastern Europe, for instance—have the potential to deepen much further as their financial systems develop.

Exhibit 1

COMPOSITION AND GROWTH OF THE GLOBAL FINANCIAL STOCK

$ Trillions; percent



* Based on latest available data: September 2004 for equities, March/June 2004 for debt, June 2004 for bank deposits

** Extrapolation off of 2003 base, with components grown at 1993-2003 CAGRs

Note: 2004E shares do not add to 100% due to rounding error

Source: McKinsey Global Institute Global Financial Stock Database; World Federation of Stock Exchanges; Merrill Lynch; Global Insight

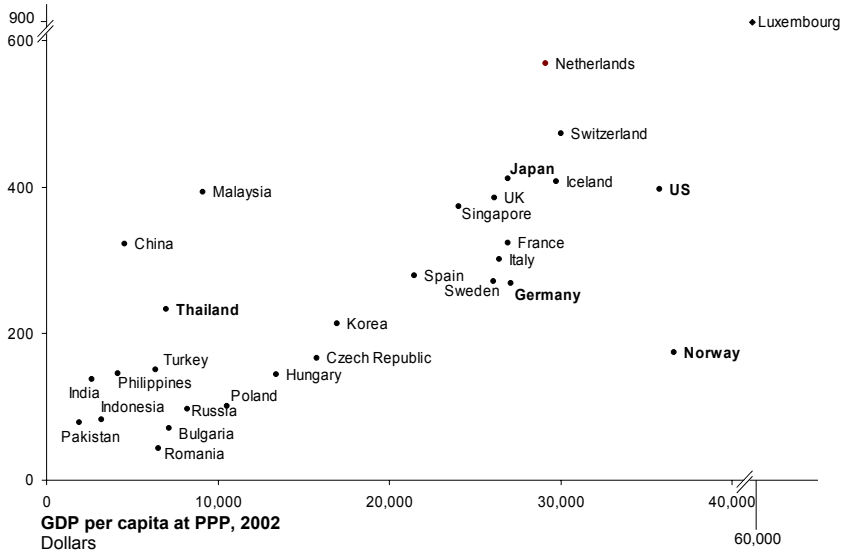
4. Financial deepening is usually beneficial, giving households and businesses more choices for investing their savings and raising capital, and enabling more efficient allocation of capital and risk. However, financial depth alone does not indicate the strength of an economy. For instance, the financial depth of the Netherlands is twice that of Italy, although both countries have similar GDP per capita. Germany and Thailand, on the other hand, have similar financial depth at very different income levels (Exhibit 2).

5. Nor does financial depth always mean a healthier financial system. The US and Japan offer a striking contrast: financial deepening has been driven in the US by increased private sector intermediation, but in Japan by rapid growth in government debt in the face of stagnant equity and private debt markets—a potentially unhealthy displacement of private sector intermediation by government debt, postponing liabilities to future generations. Deepening in other large markets, such as the UK and the eurozone, falls somewhere in between these two cases (Exhibit 3).

Exhibit 2

WEAK LINK BETWEEN FINANCIAL DEPTH AND WEALTH

2003 Financial stock
Percent of GDP

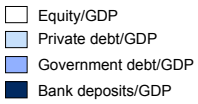


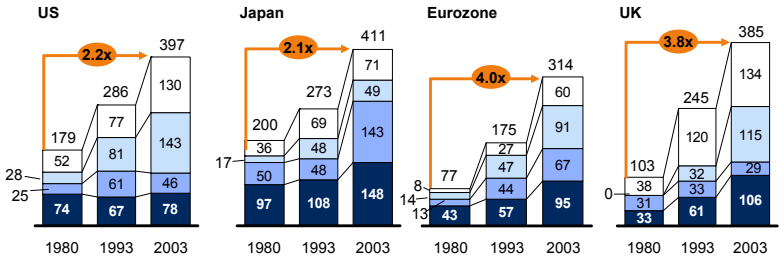
Source: McKinsey Global Institute Global Financial Stock Database; World Bank

Exhibit 3

DIFFERENT DRIVERS OF FINANCIAL DEEPENING ACROSS MARKETS

Financial stock expressed as percent of GDP





1980-2003 change	Absolute*	Relative	Absolute*	Relative	Absolute*	Relative	Absolute*	Relative
Equity/GDP	78	36	35	17	52	22	96	34
Private debt/GDP	115	53	32	15	77	33	115	41
Government debt/GDP	21	10	93	44	54	23	-2	-1
Bank deposits/GDP	4	2	51	24	52	22	73	26
FS/GDP	**218**	**100**	**211**	**100**	**237**	**100**	**282**	**100**

* In percentage points: e.g., the US depth for 2003 was 397 and for 1980 was 179, yielding a 218-point increase
Note: Some numbers do not add up due to rounding error
Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Global Insight

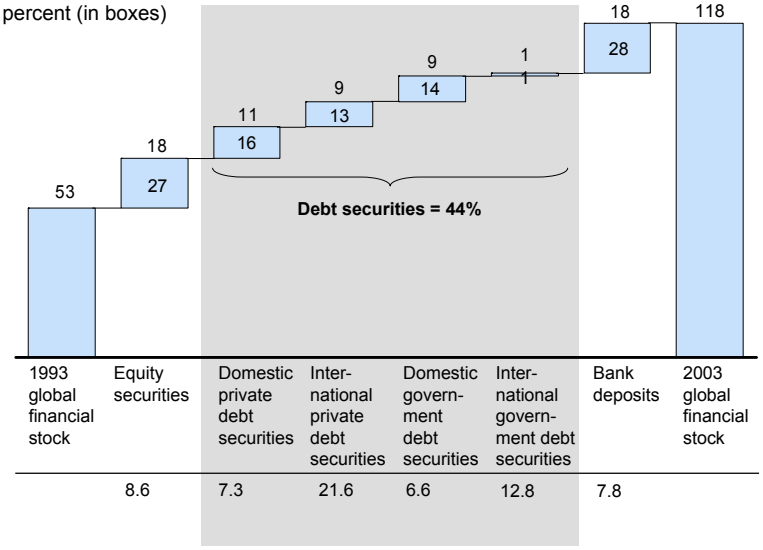
DEBT, DEBT, AND MORE DEBT—GLOBAL FINANCIAL STOCK SHIFTING AWAY FROM BANK DEPOSITS AND TOWARD DEBT SECURITIES

1. Private debt securities are the largest component of the global financial stock and the fastest growing. Together with government debt, they account for nearly half of the overall growth in global financial assets between 1993 and 2002 (Exhibit 4). At the same time, *international* issues of private debt, while still small, have grown nearly three times as fast as *domestic* issues (20 percent versus 7 percent), reflecting the increasing globalization of capital as companies seek funding outside their domestic borders. Growth in private debt markets is a positive development for companies, and opens the door for further securitization of assets in the global capital market.

Exhibit 4

DEBT SECURITIES HAVE CONTRIBUTED 44% OF GLOBAL FINANCIAL STOCK GROWTH SINCE 1993

$ Trillions; percent (in boxes)



Note: Increases do not add up to $118 trillion and 100% due to rounding error
Source: McKinsey Global Institute Global Financial Stock Database

2. The role of government and private debt securities in explaining the overall increase in debt varies across geographies. Increases in government debt account for all of the growth of debt in Japan, and nearly all in Italy and France. In contrast, growth of private debt securities is the primary factor in the UK. The United States and Germany, meanwhile, have seen relatively

even increases across three classes of debt: private, government, and asset-backed securities (ABS). ABS growth is driven by mortgages, and the US is at the forefront of the trend, with $5.3 trillion of its $9.9 trillion in mortgages packaged into securitized assets. In the future, other forms of consumer credit will increasingly be pooled and securitized, suggesting significant potential for future growth in this market.

3. Bank deposits have, since 1980, grown more slowly than the *tradable* asset classes (debt and equity securities). As a result, there has been a striking shift within the global financial stock from *bank intermediation* to market intermediation and from *non-tradable* bank loans to *tradable* debt and equity securities. In 1980, bank deposits were the dominant asset category, accounting for fully 45 percent of the global financial stock; today this share is just 30 percent. This shift toward tradable instruments is an important enabler of the continued integration of the global capital market.

4. Equities have grown faster than the overall financial stock over the long run, but with considerable year-to-year volatility: in 1999, with equity markets soaring, equities were briefly the largest asset class in the global financial stock with a 38 percent share—by 2003 this share had fallen back to 27 percent. Over the past decade, growth in equities has occurred through a combination of new issues, earnings growth, and increases in the price-to-earnings (P/E) ratio, with significant differences across countries. In the US, P/E increases since 1980 have been a meaningful source of equity stock growth, while in Europe growth has come mainly through increased earnings. Moreover, in the US, IPOs are a significant source of financial stock growth, while in Europe most newly floated shares come through privatizations.

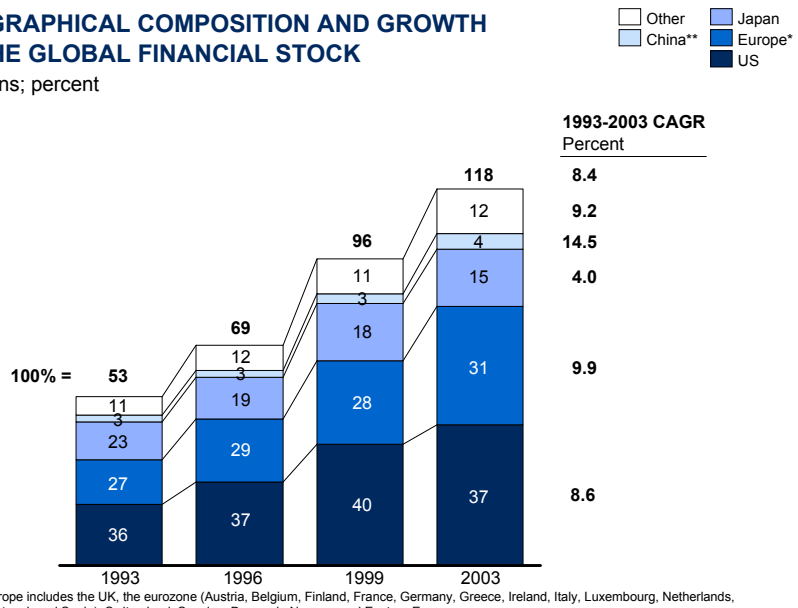
ROLES OF COUNTRIES AND REGIONS IN THE GLOBAL CAPITAL MARKET ARE IN FLUX

1. Three markets account for more than 80 percent of the world's financial stock: the US, Japan, and Europe. The United States plays a dominant role, with 37 percent of the global financial stock. With the creation of the euro, however, European financial markets are integrating and gaining share. Japan's financial markets, by contrast, are becoming less important in the global financial system, while China's are growing very fast. Financial markets

Exhibit 5

GEOGRAPHICAL COMPOSITION AND GROWTH OF THE GLOBAL FINANCIAL STOCK

$ Trillions; percent



* Europe includes the UK, the eurozone (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain), Switzerland, Sweden, Denmark, Norway, and Eastern Europe

** China also includes Hong Kong and Macao

Note: 2003 shares do not add to 100% due to rounding error

Source: McKinsey Global Institute Global Financial Stock Database

in the rest of the world—including India, Singapore, and Latin America—remain tiny in the global context (Exhibit 5).

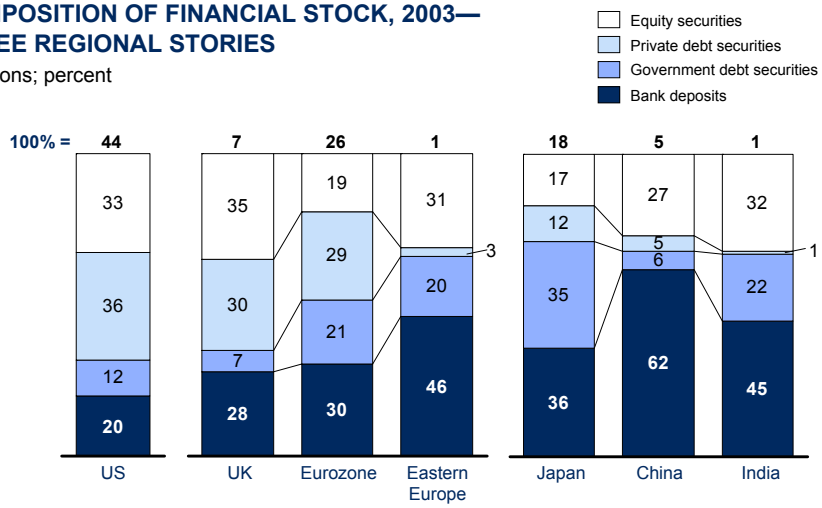
2. There are stark differences among these markets. The US market is dominated by private debt and equity markets. In Europe, by contrast, banks play a larger role in finance, although European debt capital markets are growing quickly. Asian financial markets are relatively isolated from each other and display important differences. Japan has the region's largest financial stock, but is slow-growing. China's financial stock is among the fastest-growing in the world but remains heavily reliant on bank intermediation—a concern given the fragility of China's banking system (Exhibit 6).

3. Patterns of financial asset growth vary across geographies. In the US, initial public offerings of small companies are a significant source of equities growth, as are increases in P/E ratios. In Europe, by contrast, increases in earnings and newly floated shares from privatizations of state-owned firms explain most equity growth. In Japan, a huge expansion of government debt is the only meaningful source of financial stock growth, while the stock of

Exhibit 6

COMPOSITION OF FINANCIAL STOCK, 2003—THREE REGIONAL STORIES

$ Trillions; percent



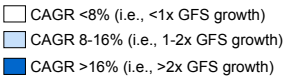
	US	UK	Eurozone	Eastern Europe	Japan	China	India
Depth (FS/GDP) Percent	397	385	314	99	411	323	137
CAGR Percent	8.6	11.3	9.8	19.3	4.0	14.5	11.9

Note: Some numbers do not add to 100% due to rounding error
Source: McKinsey Global Institute Global Financial Stock Database; Global Insight

Exhibit 7

REGIONAL VARIATION IN FINANCIAL STOCK GROWTH, 1993–2003

CAGR, percent



	US	UK	Eurozone	Eastern Europe	Japan	China	India
Equity securities	11	8	12	**56**	0	13	11
Private debt securities	11	**21**	11	**26**	0	**18**	0
Government debt securities	2*	5	8	**17**	12	**28**	14
Bank deposits	7	13	9	14	3	14	12

* The US Government debt securities stock grew much faster in 2002 (8%) and 2003 (11%)
Source: McKinsey Global Institute Global Financial Stock Database

equities and private debt securities has actually declined. In China, although bank deposits account for two-thirds of the financial stock, debt securities show the fastest growth (Exhibit 7).

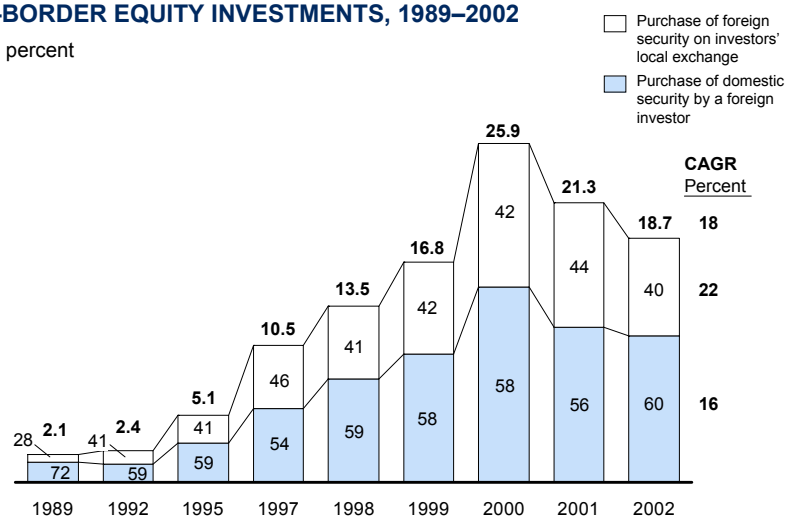
THE US DOLLAR AND US MARKETS REMAIN AT THE HUB OF A RAPIDLY INTEGRATING GLOBAL CAPITAL MARKET

1. With a few exceptions, it is no longer accurate to think in terms of national financial markets. Instead, individual markets are becoming increasingly integrated into a single global market for funding, as cross-border holdings of financial assets and cross-border flows of capital grow. For example, today foreigners hold 12 percent of US equities, 25 percent of US corporate bonds, and 44 percent of Treasury securities, up from 4 percent, 1 percent, and 20 percent, respectively, in 1975. Since 1989, cross-border equity flows have grown nearly tenfold, at 18 percent per annum. These flows now equal 80 percent of global equity market capitalization, up from just 18 percent in 1989 (Exhibit 8). This growth is clear evidence that despite the financial

Exhibit 8

CROSS-BORDER EQUITY INVESTMENTS, 1989–2002

$ Trillions; percent



Flows/world market cap Percent	18	22	29	45	50	47	80	77	80

Source: CrossBorder Capital; S&P Emerging Markets Factbook

crises and anti-globalization backlash of recent years, the global capital market continues to integrate and develop.

2. US markets remain at the core of this rapidly integrating and evolving global capital market. The lion's share of the world's cross-border capital flows are intermediated through US financial markets. The US is, by a wide margin, the largest destination market for cross-border equity flows from virtually every major country across the world. The UK comes in at a distant second, while Japan and continental Europe are smaller still (Exhibit 9).

Exhibit 9

CROSS-BORDER EQUITY FLOWS, 1999

Percent of investments from a given market going to a foreign market

0-10 | 21-50 | 11-20 | 51-100

Investor from	Investing to: US	UK	Neth.	Japan	Germ	France	Switz.	Spain	Italy	Scand.*	ROE**	Total $ Billions
US	n/a	30	5	11	3	3	2	1	2	5	4	4,689
UK	21	n/a	13	7	13	13	6	4	1	6	3	5,667
Netherlands	28	23	n/a	3	9	11	3	1	4	3	9	285
Japan	69	8		n/a	1		2	1	1		-1	270
Germany	21	6	12	17	n/a	13	9	3	6	4	2	808
France	57	6	10	2	10	n/a	2	1		1	5	634
Switzerland	47	13	5	5	7	10	n/a	1	1	2	2	530
Spain	29	15	10	13	3	4	2	n/a	3	2	3	69
Italy	39	11	3	18	3	8	2	1	n/a	1	2	218
Scandinavia*	20	14	1	2	1	1	1		1	50	2	272
ROE**	38	3	27	13	1	6		1	1	1	3	462
Canada	82	4			1	6	1			1		209
Australia	63	8		4		8		1	1	1		35
Hong Kong	29	24	2	18		5	3	1	1	1	1	93
Singapore	46	11	1	15		4	5	1	1			85
Rest of world	89											2,504

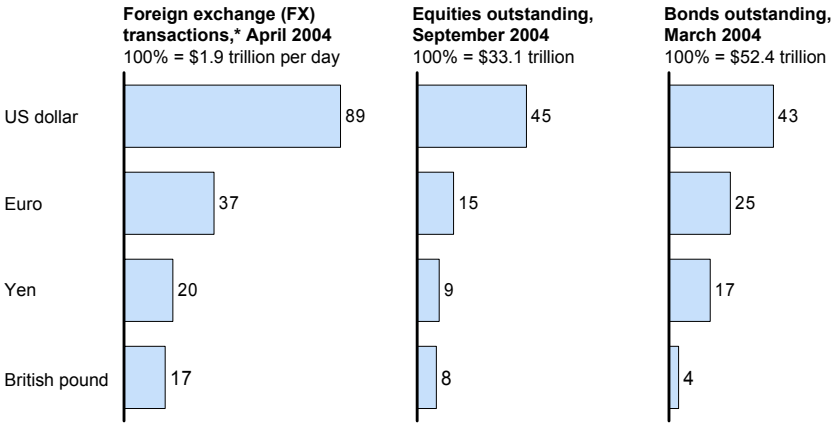
* Sweden, Norway, Finland, and Denmark
** Rest of Europe: Austria, Belgium/Luxembourg, Greece, Ireland, Portugal, Turkey
Source: Cross-Border Capital (unpublished data)

3. Despite the recent decline in the value of the US dollar and growing talk of the euro replacing it as a global reserve currency, the dollar continues to dominate global finance. It is the world's most heavily traded currency and the preferred currency for issuing equities and bonds. Many other countries, including China and Malaysia, have tightly linked their domestic currencies to the US dollar. Although the euro is gaining notice among the world's central bankers, it is a long way from matching, let alone surpassing, the role of the dollar in international finance (Exhibit 10).

Exhibit 10

PREFERRED EXCHANGE CURRENCY FOR FINANCIAL PRODUCTS

Percent



* Because there are two currencies in a single FX transaction, the potential total is 200%; the share of other currencies comprise the remaining 37%

Source: McKinsey Global Institute Global Financial Stock Database; Federation of World Stock Exchanges; Bank for International Settlements (BIS)

Introduction

Developments in the capital markets are of great interest to financial and business professionals, policy makers, academic researchers, and individual investors around the world. Accordingly, they are the subject of continuous coverage and research. Yet the facts and trends around the long-term evolution of the global capital market (GCM) across geographies and asset classes are neither readily available nor are their implications fully realized. Our report aims to fill this gap and paint a longer-term, aggregate picture of the global capital market. Such a picture is essential to provide a global context for more narrow domestic perspectives, to understand the relative sizes and trajectories of individual markets (for example, Japan versus China), and to recognize and anticipate patterns across time, asset mix, and regions.

This introduction is organized in the following sections:

1. **Objectives of the study.** Provides the context to our research and lays out the key questions we set out to address.
2. **Approach.** Describes the approach we took, with discussion of our definition of the global capital market and a description of our research database.
3. **Interpretation of our results.** Discusses two important distinctions that underlie the findings in this report (intermediation by markets versus banks, and government debt securities versus other asset classes) and also comments on the impact of foreign exchange rate fluctuations on our findings.
4. **Road map to subsequent chapters.** Lays out the remainder of the report.

We wrote this report to allow the chapters to be read independently. Because of this structure, those readers interested in our findings from a specific region (that is, on the global level, or for the US, Europe, or Asia), can skip directly to the respective chapter. We have included in each chapter critical information from this introduction by means of side boxes and footnotes.

1. OBJECTIVES OF THE STUDY

To get a better handle on the global economic developments and regional contrasts, we investigated the collection of markets where global capital supply is matched with global capital demand through bank and securities intermediation. Our report informs a longer-term, aggregate view of how the GCM is evolving across geographies and asset classes, and draws insights from the cross-regional contrasts we observe.

Our extensive research over the past year probed three sets of critical questions:

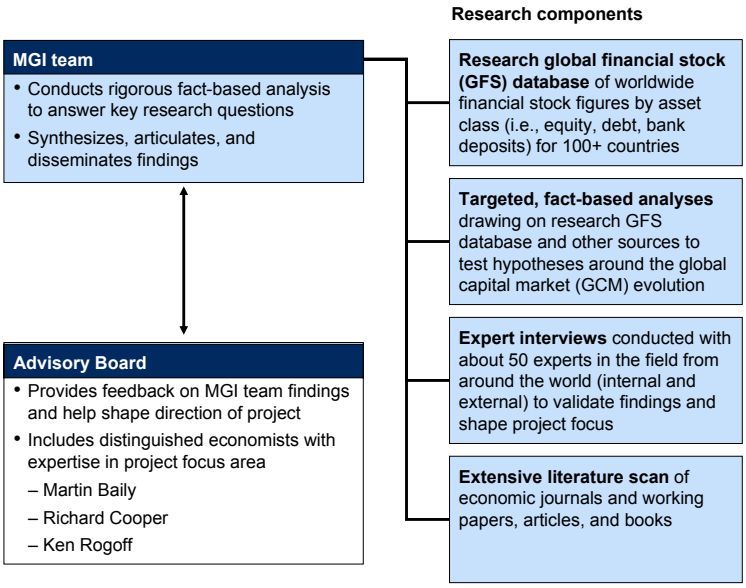
- What is the scope and scale of the global capital market? How fast is it growing in absolute terms and relative to underlying GDP? What is fueling the growth?
- What is the asset composition of the global financial stock? How has it evolved over the years? What drives shifts across asset classes?
- What roles do different countries and regions play in global financial intermediation? What is the geographic makeup of the global financial stock? What are the key regional contrasts?

2. APPROACH

To answer the questions above, we constructed a view of the global financial stock by compiling and analyzing an extensive research database, described in this section. We also performed supplemental analyses, reviewed external literature, and heavily leveraged McKinsey's experience and understanding of the capital market across geographies through approximately 50 interviews with McKinsey partners around the globe. Finally, we greatly benefited from the

Exhibit 1

OVERVIEW OF RESEARCH APPROACH



valuable input provided by our Advisory Board, which included Martin Baily, Richard Cooper, and Ken Rogoff[1] (Exhibit 1).

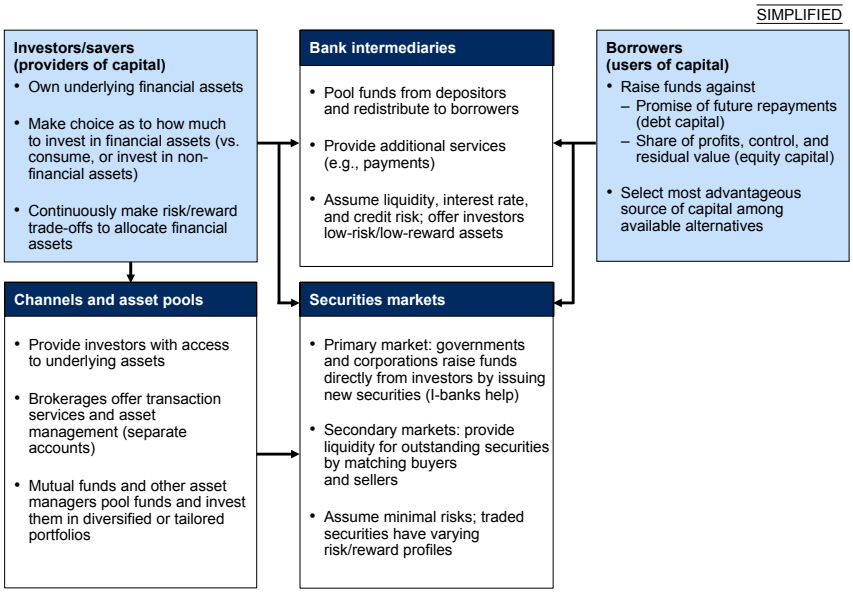
Global financial stock definition

The global capital market can be defined in myriad ways depending on the research lens one selects. Consequently, there are multiple approaches to estimating its size; to offer a few examples, the market could be sized by trading or transaction volumes, by value of outstanding financial instruments, by sector, or by number of participants. For the purposes of our research, we broadly define the global capital market as the cumulative collection of markets where global capital supply is matched with global capital demand through bank and securities market intermediation.

[1] Martin Baily is senior advisor to MGI, formerly senior fellow at the Institute for International Economics and chief economic advisor to President Clinton; Richard Cooper is professor of international economics at Harvard University; and Ken Rogoff is professor of economics and public policy at Harvard University and formerly chief economist at the International Monetary Fund.

Exhibit 2

FIVE MAJOR PARTICIPANTS IN THE GLOBAL CAPITAL MARKET



Within this definition, we take a rather simple view of the participants in the global capital market[2] (Exhibit 2).

We view the global capital market as the marketplace where five types of participants meet to match the available capital supply and demand:

1. **Investors/savers:** providers of capital who supply funds in exchange for financial assets that promise return and have an inherent level of risk, and who continuously make risk/reward trade-offs to allocate their financial assets.

2. **Borrowers:** users of capital who raise funds against a promise of future repayment (debt capital) or a share of profits, control, and residual value

[2] Comprehensive national financial statistics, as prescribed by the IMF in its *Monetary and Financial Statistics Manual* or used in the *U.S. Flow of Funds*, take a sectoral view of the financial flows in an economy by defining multiple sectors (for example, households, nonprofits, non-financial corporations, financial corporations, government) and further breaking sectors down into types of institutions (for example, government sector may be comprised of central government, state government, local government, and social security funds). The benefit of this classification is the level of granularity and the ability to build a matrix of flows among institutions. The drawback is the required complexity to build such a picture on a global scale. Our view of GCM participants is much simpler since we are only concerned with finding a measure of the overall magnitude of the market, rather than the breakdown across sectors and matrix of capital flows.

(equity capital). Borrowers select their preferred source of funds from among available alternatives.

3. **Bank intermediaries:** deposit-taking institutions that pool funds from depositors and redistribute them among borrowers. Banks assume liquidity, interest rate, and credit risk and retain a spread between the cost at which they extend credit and the price that they pay for deposits.

4. **Securities markets:** broad set of financial institutions that collectively support the issuance and trading of securities. The primary markets allow governments and corporations to raise funds directly from investors by issuing new securities, while the secondary markets provide liquidity for outstanding securities by matching buyers and sellers. In contrast to banks, markets directly match investors with borrowers (that is, they disintermediate the market for capital) and assume minimal risks.

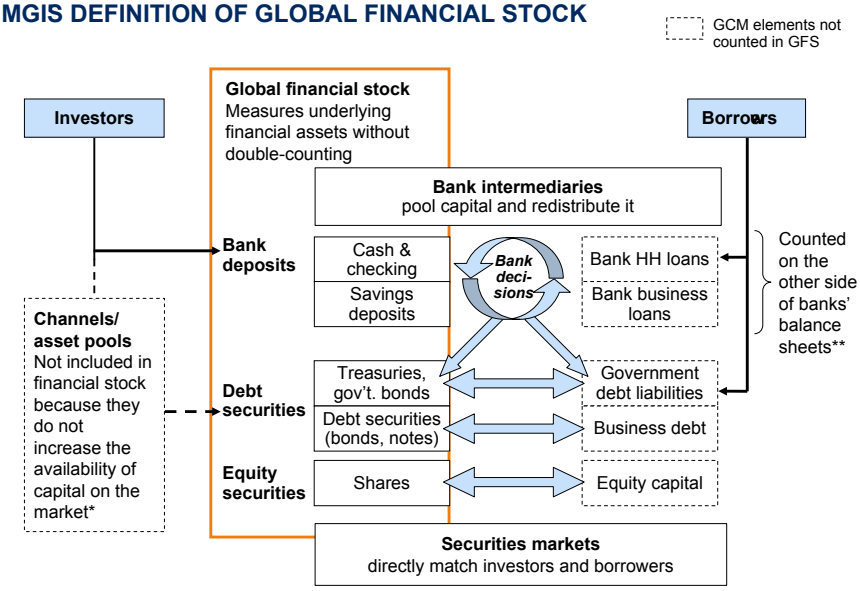
5. **Channels and asset pools:** we have chosen to view asset managers and other asset pools as "channels," because they manage portfolios of deposits and securities on behalf of investors, and serve as a pass-through vehicle of savings channeled toward borrowers. Mutual funds, pension funds, and insurance companies are included in this category.

To size the global capital market, we have profiled the global financial stock, as defined by the sum of the global bank deposits, the market value of publicly traded equities, and the outstanding face value of debt securities (Exhibit 3). This sum represents the amount of capital that is intermediated through banks and securities markets without double-counting.[3] We exclude securities that represent portfolios of these assets—for example, mutual funds, pension funds, and insurance companies—to avoid the double-counting of the securities in those portfolios. Alternative approaches are possible; for instance, if asset pools or interbank loans are considered an independent asset class in the financial stock, the overall size of the global financial stock would be larger.

[3] This financial stock definition differs from other existing approaches. For example, *Data Monitor* defines the GCM as the sum of outstanding debt securities and market value of equity, but excludes bank deposits. In contrast, academic research is often concerned only with the banking system and its bank deposits, since the securities markets play a relatively small role in developing countries.

Exhibit 3

MGIS DEFINITION OF GLOBAL FINANCIAL STOCK



* On the flip side, they do not represent more capital consumed
**In reality, banks do invest in securities and use deposits to fund these investments; however, this would have only a minor effect on double-counting

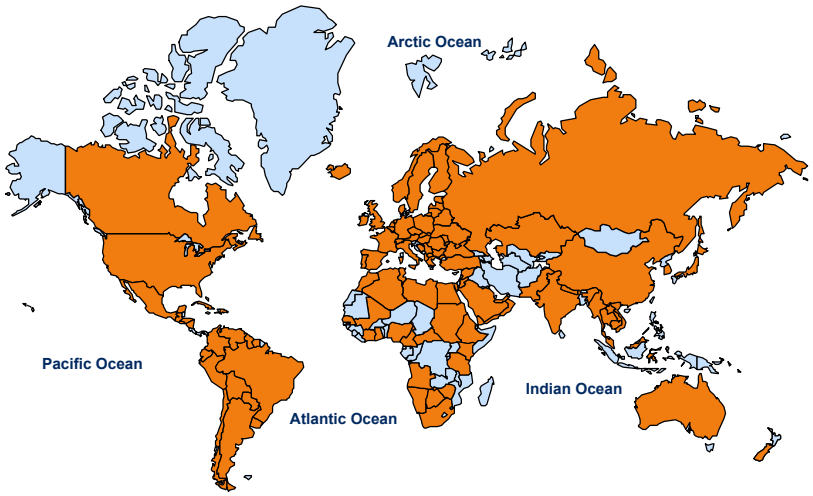
McKinsey Global Institute Global Financial Stock Database

For the purposes of our research, we have constructed a database built on global financial stock data for the past 10 years for more than 100 individual countries.[4] This database allows us to perform a wealth of analyses on a globally aggregated level, as well as on the regional and individual country level and draw conclusions from the observed contrasts across geographies (Exhibits 4–5).

[4] Albania, Algeria, Angola, Argentina, Aruba, Australia, Austria, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Bermuda, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Cameroon, Canada, Cayman Islands, Chile, China, Colombia, Costa Rica, Cote d'Ivoire, Croatia, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Estonia, Ethiopia, Finland, France, Germany, Ghana, Greece, Guatemala, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Republic of Korea, Kuwait, Latvia, Lebanon, Libya, Lithuania, Luxembourg, Macao, China, Macedonia, Malaysia, Mali, Malta, Mauritius, Mexico, Moldova, Morocco, Myanmar, Namibia, Nepal, Netherlands, Netherlands Antilles, New Zealand, Nicaragua, Nigeria, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russian Federation, San Marino, Saudi Arabia, Senegal, Singapore, Slovak Republic, Slovenia, South Africa, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Syrian Arab Republic, Taiwan, Tanzania, Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Venezuela, Vietnam, West Bank and Gaza, West Indies, Yemen, Zimbabwe. Where only one or two of our three main sources (S&P, BIS, and IMF) have data on a given country, the data set for that country is incomplete but included in the overall figures. In practice, the missing data is for countries that make up only a small portion of the overall financial stock.

Exhibit 4

COUNTRIES COVERED IN OUR RESEARCH GLOBAL FINANCIAL STOCK DATABASE*

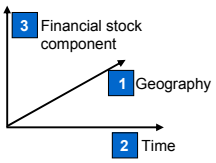


* See Appendix for detail

Exhibit 5

DESCRIPTION OF OUR RESEARCH GLOBAL FINANCIAL STOCK DATABASE*

Three-dimensional GFS database structure



1 Geography

- Data available for 100+ countries and territories

2 Time

- Actual data series for 1993-2003
- 2004 estimates
- 1980 numbers available with simplified methodology

3 Financial stock component

- **Equity securities = domestic stock market capitalization**
  - Based on data from Standard & Poor's (S&P) *Global Stock Markets Factbook*
  - Measured at end-of-year market values (shares outstanding* price) expressed in current US dollars
  - S&P manually tracks American Depositary Receipts (ADRs) with significant market capitalization to exchange where headquarters are located (i.e., Ford ADRs attributed to US equity market capitalization)
- **Debt securities = debt securities issued in the country**
  - Based on Bank for International Settlements' (BIS) *Quarterly Review*, September 2004, plus unpublished data on international debt breakdown by sector
  - Measured at face values of outstanding debt, in current US dollars
  - Broken down into private vs. government** and domestic vs. international debt
    - Private debt securities are issued by financial institutions and by corporations, including agencies (i.e., government-sponsored enterprise in the US). Government debt securities are issued by the central/local government and the central bank
    - Domestic debt securities are those issued by a resident issuer, in a local currency and, in BIS's judgment, targeted at local investors; otherwise debt securities are classified as international
- **Bank deposits = private demand, checkable, term and other notice deposits + money market mutual funds and accounts + (small amount of) money in circulation**
  - Based on data from International Monetary Fund's (IMF) *International Financial Statistics Yearbook*
  - Measure at end-of-year levels in current US dollars
  - Some methodological differences exist across countries
  - Maps to BIS's money supply = money + quasi-money + money market (broad definition of money)

* See Appendix for detail
** Consistent with new BIS methodology introduced in Q1 2003, which classifies debt as government debt, corporate debt, and debt of financial institutions

It is interesting to note that the US, the eurozone, the UK, and Japan alone made up 80 percent of the global financial stock in 2003. Accordingly, we have focused on these markets in depth, in addition to analyzing several smaller but fast-growing and important regions (such as China and Eastern Europe).

For each country, our database contains data on the market value of the equities issued on its stock exchanges, excluding American Depositary Receipts (ADRs), which are tracked back to the exchange of the underlying stock, the outstanding face value of debt securities issued in the country, and the amount of private bank deposits.[5] Debt securities are further divided into private and government. Private debt securities are issued by corporations and financial institutions, including agencies such as the government-sponsored enterprises (GSEs) in the US.[6] Government debt securities are issued by the central and local government, and the central bank.[7] Our database also contains GDP data for each country to allow us to calculate the size of the financial stock relative to the size of the underlying economy (Exhibit 4).

For aggregation purposes and comparability, all financial stock figures are at their end-of-year values and expressed in current US dollars. Accordingly, all financial stock growth rates are nominal growth rates based on numbers expressed in current US dollars; thus, they reflect inflation and exchange rate shifts.[8] All GDP growth figures in this report are also in nominal terms.

We have sourced the data sets we use to construct the database from the best available sources in terms of their ability to provide data on a global basis: for

[5] Because of data availability issues, our bank deposit figures also include a small amount of currency in circulation, which strictly speaking is not intermediated through the banks; however, our overall findings are not impacted by this imperfection given the small amount of currency.

[6] Government National Mortgage Association (GNMA), Federal National Mortgage Association (FNMA), Federal Home Loan Management Corporation (FHLMC).

[7] In the first quarter of 2003, BIS changed their classification methodology basically reclassifying instruments from the categories of public (government and state-owned companies) and private (financial and non-financial) to the categories of public (government), financial (private and state-owned/guaranteed), and non-financial (private and state-owned). Our database reflects the new BIS methodology.

[8] It is important to note that financial stock growth rates are sensitive to choice of start and end year and must be put in the context of foreign exchange movements. For example, in the period 1993 to 2003 Europe's financial stock grew faster than the US; but if we calculated the growth rates for 1993 to 2002 instead, the US stock grew faster.

publicly traded equities we use the Standard & Poor's (S&P) *Global Stock Markets Factbook*; for debt securities we use the Bank for International Settlements (BIS) *"Quarterly Review: International Banking and Financial Market Developments," September 2004*, as well as unpublished data that allows us to estimate the breakdown of international debt figures by sector; for bank deposit figures we use the International Monetary Fund (IMF) *International Financial Statistics Yearbook* and exchange rate data from the IMF *International Financial Statistics Yearbook* (exchange rates—national currency per US dollar, end of period average).[9] Finally, GDP data is sourced from *Global Insight*.

3. INTERPRETATION OF OUR RESULTS

Two important distinctions underlie the findings in this report: intermediation by markets versus banks, and government debt securities versus other asset classes. Further, the fluctuations in the foreign exchange markets also impact our findings. In this section we discuss each of these in turn.

1. Market intermediation versus bank intermediation (also tradable versus non-tradable instruments)

The stock of equity and debt securities represents the degree of *market intermediation* in an economy, since they are the instruments used by the financial market to directly match up those who want to invest money with those who want to raise capital. Because equity and debt securities may be traded on the markets, we often refer to them collectively as *tradable instruments* (although depending on their liquidity and turnover, some securities may not be actually traded).

In contrast, the stock of bank deposits represents the degree of *bank intermediation* in an economy, since bank deposits are the capital that the banking system channels from savers to borrowers (simplistically speaking, bank deposits fund bank lending).[10] Since capital intermediated through the

[9] The stock of equity securities and debt securities is reported in US dollars by the S&P and BIS, respectively. The IMF reports bank deposits in local currency, which we have converted in US dollars.

[10] Our bank deposit numbers include a small amount of currency in circulation that does not conform to the definition of bank intermediation; however, it has minimal impact on our findings.

banks is less easily transferable than stocks or bonds, we refer to bank deposits as *non-tradable*.

In general, governments have greater ability to regulate the banking sector than they do the financial markets. Thus, the degree of government control over the financial system bears an important relation to the extent of bank intermediation.

2. Government debt securities versus other asset classes

Equity securities, private debt securities, and bank deposits (which fund bank loans) are the main classes of instruments for intermediating capital between borrowers on one hand and investors and savers on the other. As these three elements of the financial stock increase, the economy becomes more efficient at allocating capital to its best use.

Government debt securities are quite different. They function more as an instrument to redistribute taxes across generations than as a means to allocate capital from savers to borrowers. Although a well-developed market for government debt securities supports the development of a private debt securities market, government debt does not *directly* help firms to raise capital and grow.

The distinction between government debt and the other asset classes is not always clear-cut. For example, in some developing countries the government may direct bank lending, support bank balance sheets, control corporate activity, or guarantee corporate debt. In such cases, a portion of bank deposits and corporate debt may be a disguised form of government debt.

Because of such differences across asset classes, cross-regional comparisons are meaningful only when the size of a financial stock is understood relative to its *composition*. For example, a large financial stock dominated by government debt securities is a sign of a high degree of future generation liabilities, rather than a sign of more efficient capital allocation.

3. Foreign exchange rate fluctuations

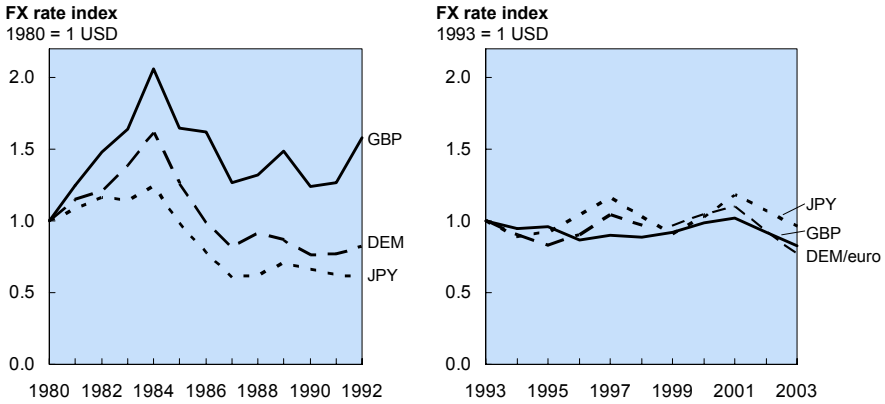
Because we express the financial stock of all countries in US dollars (to be able to aggregate the national stocks on a global level) foreign exchange rate fluctuations of the dollar against major currencies play a role in our findings on

the relative size and growth of financial stock among regions in the global capital market.

Overall, the fluctuations of exchange rates since 1993 have been tamer than those of the 1980s. However, it is important to note that the US dollar has significantly depreciated against the euro, the British pound, and the Japanese yen since the end of 2001. Consequently, our findings potentially overstate the growth rates and relative sizes of the eurozone, the UK, and Japan, since these reflect not only the growth and size of the underlying financial stock in local currency, but also the impact of currency rate translation (Exhibit 6).

Exhibit 6

FOREIGN EXCHANGE RATES AGAINST THE US DOLLAR



Exchange rate USD equivalent	2001	2003
GBP*	1.45	1.79
EUR*	0.89	1.25
JPY	131.80	107.10

* Expressed conventionally; the chart has these values converted in terms of 1 USD = X foreign currency units

Source: International Monetary Fund (IMF) International Financial Statistics exchange rates – national currency per US dollar (end of period average)

As an illustration of the impact of foreign exchange fluctuations, the 32 percent annual growth of eurozone bank deposits, expressed in US dollars between 2001 and 2003, can be disaggregated into 10.3 percent annual growth in underlying bank deposit stock expressed in euros and 19.7 percent of annual growth in the foreign exchange rate of the euro against the dollar.

4. ROAD MAP TO SUBSEQUENT CHAPTERS

The following four chapters cover our findings by region. Chapter 1 articulates our findings on the aggregate global level, contains a discussion on the process of financial deepening, and highlights the key findings in each of the three regions we have analyzed—the US, Europe, and Japan. Chapter 2 lays out our US findings and discusses the unique role the US plays in the global capital market. Chapter 3 articulates our European findings, looking at the continent as a whole and then looking in greater detail at the UK, Switzerland, the eurozone, and Eastern Europe. In addition, this chapter analyzes Germany, France, and Italy at the country level. Finally, Chapter 4 focuses on our Asian findings, with an in-depth look at Japan, China, India, and Korea.

Each chapter is organized in a consistent structure that includes:

1. **Key findings**—summary of our findings for that region
2. **Context**—select macroeconomic facts and recent developments of the financial market for that region
3. **Overall size, growth, and depth of the financial stock**—detailed look into our findings for the overall size and growth of the financial stock for that region
4. **Asset composition of the financial stock**—detailed look into the changes in asset composition of the financial stock over time.

The Appendix is a technical note that provides additional details on our research database and discusses its possible limitations and their impact on our overall conclusions.

1. Global Findings

Our report informs a longer-term, aggregate view of how the global capital market (GCM) is evolving across geographies and asset classes, and draws insights from the striking cross-regional contrasts we observe. We have analyzed the evolution of the global financial stock (GFS) since 1980.

In a nutshell, three cross-cutting themes come out of our research on a global level. First, the growth in the global financial stock far outpaces the growth in underlying GDP, resulting in financial deepening; while the global financial stock was similar in size to the world's GDP in 1980, today it is more than three times larger. We think that financial deepening is largely beneficial, but that depends on the specific forces in each country. Second, debt securities are the most important asset class in the global financial stock. They hold the largest share of GFS and have been steadily expanding over time. Within debt securities, the relative role of private and government securities varies across geographies; for example, government debt is a relatively small share of the US's and the UK's financial stock, but dominates Japan's. Third, the roles of the different regions in the GCM are shifting, reflecting the profound contrasts in size, composition, growth, and degree of integration. The US maintains a unique role in the GCM and bolsters its dominance in private debt and equity securities. Europe is integrating fast and is gaining global share across all asset classes. Japan is diminishing its global role in all assets but government debt, which has driven most of Japan's growth in financial stock. Lastly, China is now a force in the global capital market—while still relatively small overall, it controls a meaningful share of the global bank deposits.

This chapter illuminates our global level findings; it is organized in these sections:

1. Key findings
2. Context
3. Overall size, growth, and financial depth of the global financial stock
4. Asset composition of the global financial stock
5. Integration and regional composition of the global financial stock.

Subsequent chapters take an in-depth view of individual regions.

Interpretation of Our Results

We define financial stock as the sum of equity securities, private and government debt securities, and bank deposits. Thus, a financial stock represents the capital that is intermediated through the securities markets and the banking system in a given economy.

Two important distinctions underlie the findings in this report: intermediation by markets versus banks, and government debt securities versus other asset classes.

1. Market intermediation versus bank intermediation (also tradable versus non-tradable instruments)

The stock of equity and debt securities represents the degree of *market intermediation* in an economy, since they are the instruments used by the financial market to directly match up those who want to invest money with those who want to raise capital. Because equity and debt securities may be traded on the markets, we often refer to them collectively as *tradable instruments* (although depending on their liquidity and turnover, some securities may not be actually traded).

In contrast, the stock of bank deposits represents the degree of *bank intermediation* in an economy, since bank deposits are the capital that the banking system channels from savers to borrowers (simplistically speaking,

bank deposits fund bank lending). Since capital intermediated through the banks is less easily transferable than stocks or bonds, we refer to bank deposits as *non-tradable*.

In general, governments have greater ability to regulate the banking sector than they do the financial markets. Thus, the degree of government control over the financial system bears an important relation to the extent of bank intermediation.

Note: Our bank deposit numbers include a small amount of currency in circulation that does not conform to the definition of bank intermediation; however, it has minimal impact on our findings.

2. Government debt securities versus other asset classes

Equity securities, private debt securities, and bank deposits (which fund bank loans) are the main classes of instruments for intermediating capital between borrowers on one hand and investors and savers on the other. As these three elements of the financial stock increase, the economy becomes more efficient at allocating capital to its best use.

Government debt securities are quite different. They function more as an instrument to redistribute taxes across generations than as a means to allocate capital from savers to borrowers. Although a well-developed market for government debt securities supports the development of a private debt securities market, government debt does not *directly* help firms to raise capital and grow.

The distinction between government debt and the other asset classes is not always clear cut. For example, in some developing countries the government may direct bank lending, support bank balance sheets, control corporate activity, or guarantee corporate debt. In such cases, a portion of bank deposits and corporate debt may be a disguised form of government debt.

Because of such differences across asset classes, cross-regional comparisons are meaningful only when the size of a financial stock is understood relative to its *composition*. For example, a large financial stock dominated by government debt securities is a sign of a high degree of future generation liabilities, rather than a sign of more efficient capital allocation.

1. GLOBAL KEY FINDINGS

The global capital market continues to grow and deepen, driven largely by private debt. It is becoming more liquid and integrated, but striking differences exist across regions.

- **The GCM continues to grow and deepen.** The global financial stock has vastly expanded and in 2003 reached an unprecedented magnitude of $118 trillion, up from $12 trillion in 1980, and $53 trillion in 1993.[1] Further, its growth outpaces the growth in world GDP. While in 1980 the global financial stock was roughly equal in size to world GDP, by 2003 it had grown to more than three times the size of world GDP. Financial depth—defined as the ratio of GFS to GDP—has grown across all major asset classes, especially private ones, in a process that accompanies economic market development.

- **Private debt securities contribute most to this growth.** Private debt securities are the largest asset class within the GFS and are growing faster than equity securities and bank deposits. In contrast, government debt securities are the smallest GFS asset class (17 percent of GFS) and have grown the slowest since 1993.

- **The global financial stock is becoming increasingly liquid.** The share of bank deposits in the GFS has shrunk since 1980 from 45 percent to 30 percent, while the share of tradable instruments—debt and equity securities—has increased.

- **The GCM continues to integrate.** Cross-border holdings and cross-border flows are increasing. For example, today 12 percent of US equities, 25 percent of US corporate bonds, and 44 percent of Treasury securities are foreign owned (up from 4 percent, 1 percent, and 20 percent, respectively, in 1975). Debt issues are increasingly more international and equity portfolio flows are growing as investors buy more stocks abroad and as foreign companies make their shares available locally.

[1] All dollars are current US dollars. All growth rates are nominal growth rates based on financial stock numbers expressed in current US dollars; thus, they reflect inflation and exchange rate shifts.

- **Countries vary significantly** in their financial stock evolution, composition, and growth. For example, bank deposits make up 20 percent of the financial stock of the US and 62 percent of China's; Japan's equity market has stagnated, while that of Eastern Europe has grown by 56 percent per year.

- **There is a shift in the relative importance of the key regions.** Within the three regions we analyze—the US, Europe, and Asia—there are a few subregions of global importance. The US, the eurozone, Japan, and the UK account for 80 percent of the GFS. While much smaller, China and Eastern Europe are growing rapidly and may contribute meaningfully to GFS within 10 years.

  — **The US** plays a unique role in the GCM not only as the largest financial market (37 percent of GFS), but also as a global capital hub and conduit of capital. The relative importance of the US in total private debt and equities securities has increased, and reached 51 percent global share of private debt and 45 percent in equities in 2003. At the same time, the US share of government debt and bank deposits has dropped to 25 percent each. The US dollar maintains its unique position as the world's reserve currency despite its recent depreciation.

  — **Europe** is the second largest region (31 percent of GFS) and is gaining strength through integration, although it still remains a collection of different markets. The eurozone constitutes two-thirds of Europe's financial stock and is undergoing monetary integration, the UK acts as the European financial hub, Switzerland is a global private bank, and finally, Eastern Europe is one of the hot growth spots in the global financial stock. Europe's global share in each of the asset classes has increased modestly and has reached levels between 28 and 34 percent.

  — **Asia** is a region made up of markets that are both relatively isolated and very different, with Japan dominating two thirds of the region's financial stock and China driving the region's financial stock growth. Japan is losing global share in all asset classes but government debt securities. China has amassed a sizeable share of global bank deposits (9 percent) and is experiencing financial deepening across all asset classes.

2. GLOBAL CONTEXT

The current era of global capital market development was launched in the 1970s with the breakdown of the fixed exchange rate system and capital flow controls that had been in place since the end of World War II. That earlier system comprised a collection of largely independent national financial markets. In the late 1970s, floating exchange rates replaced the old system, and prices for instruments across borders came to be determined by capital market activity.[2]

To provide context for the evolution of this market since 1980, we first highlight a few select facts around the world economy, recent developments in the financial markets, and the degree of integration of the financial system.

Economic facts

The global economy reached $36 trillion in GDP in 2003, up from $24 trillion in 1993 and $10 trillion in 1980. The average nominal world GDP growth between 1993 and 2003 was 4 percent per year, with significant year-to-year variations.[3] The top three economies of the world—the US, the eurozone, and Japan—make up 65 percent of global GDP. At $11 trillion GDP, the US is the largest national economy in the world and growing robustly (5.1 percent average annual growth in the 10 year period). The eurozone is now the second largest economy in the world, with 2003 GDP of $8.2 trillion and average growth of 3.5 percent for the period. Finally, Japan's 2003 GDP reached $4.3 trillion, but its 10 year average nominal growth is 0 percent, despite recent economic revival (Exhibit 1).

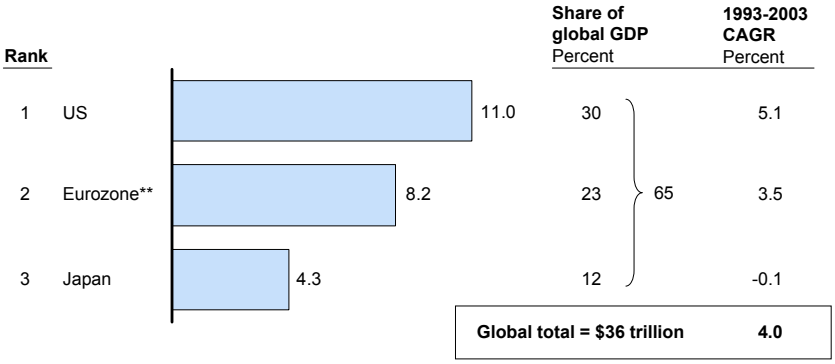
[2] The official date of the demise of the Bretton Woods Accord is August 15, 1971. However, the changes in the international financial system were more gradual. After the Bretton Woods Accord came the short-lived Smithsonian Agreement and European Joint Float, both of which failed in 1973. Governments then moved to pegged, semi-pegged, or freely floating currencies. In 1978, the free-floating system was officially mandated by the International Monetary Fund. In addition, it is important to note that the eurodollar market had an important role in the process of integration and free capital flows. The market developed in the 1950s as a result of Russia's having kept its dollar-denominated oil revenues in the UK to avoid US jurisdiction of its deposits. These dollar deposits funded loans less regulated than those originating in the US.

[3] All GDP growth figures in this report are in nominal terms.

Exhibit 1

NOMINAL GDP OF TOP THREE CONTRIBUTORS TO GLOBAL ECONOMY, 2003

$ Trillions*



* All dollars throughout this report are US dollars
** We use Europe as a comparative region in this report, including the eurozone, the UK, Switzerland, Sweden, Denmark, Norway, and all of Eastern Europe; the combined 2003 GDP of these countries was $12.1 trillion, or 33% of the global GDP, with 4.4% 1993-2003 CAGR
Source: Global Insight; MGI analysis

Recent developments

Over the past 10 years, financial markets experienced multiple financial crises (Latin America, Asia, Russia), shocks (the equity market bubble), and scandals (derivatives, corporate governance, insider trading, mutual funds). At the same time, transaction costs have continued to fall due to improvements in technology and communications (automated trading platforms, 24 hour trading spanning time zones and geographies, etc.). In addition, derivative markets and, more broadly, financial innovation have continued to thrive and to address a greater range of investor needs.

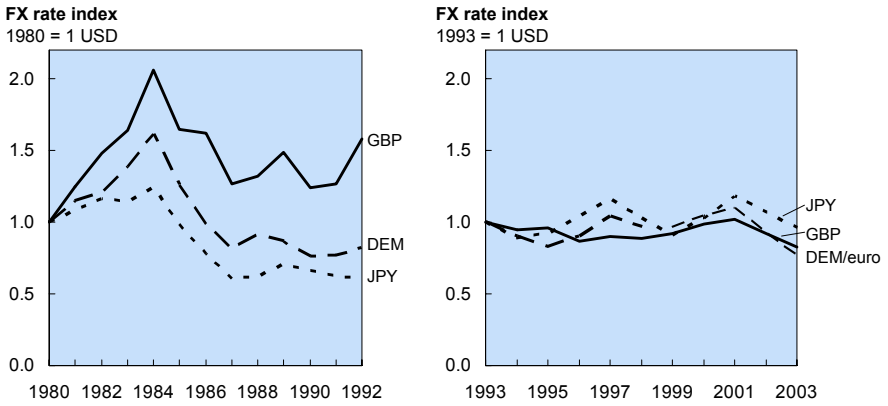
Foreign Exchange Rate Fluctuations

We express the financial stock of all countries in US dollars (to aggregate the national stocks on a global level), so foreign exchange rate dollar fluctuations against major currencies play a role in our findings on the relative size and growth of financial stock among regions in the global capital market.

Overall, exchange rate fluctuations since 1993 have been tamer than the 1980s. However, the US dollar has significantly depreciated against the euro, the British pound, and the Japanese yen since end-2001. Consequently, our findings potentially overstate the growth rates and relative sizes of the eurozone, the UK, and Japan, since these reflect not only the growth and size of the underlying financial stock in local currency, but also the impact of currency rate translation (Exhibit 2).

Exhibit 2

FOREIGN EXCHANGE RATES AGAINST THE US DOLLAR



Exchange rate USD equivalent	2001	2003
GBP*	1.45	1.79
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JPY	131.80	107.10

* Expressed conventionally; the chart has these values converted in terms of 1 USD = X foreign currency units
Source: International Monetary Fund (IMF) International Financial Statistics exchange rates – national currency per US dollar (end of period average)

To illustrate the impact of foreign exchange fluctuations, the 32 percent annual growth of eurozone bank deposits, expressed in US dollars 2001–2003, can be disaggregated into 10.3 percent annual growth in underlying bank deposit stock expressed in euros and 19.7 percent of annual growth in the foreign exchange rate of the euro against the dollar.

Financial integration

Significant integration developments include the formation of the European Union (EU), its single currency and enlargement accords, and the continued financial liberalization and entry into a market-based economy of a large segment of the world (for example, the demise of command economies in Eastern Europe, China's shift toward a socialist market economy, India's economic liberalization). The harmonization processes surrounding the EU led to steps toward standardization of legislation and upgrades in the investment infrastructure (e.g., trading platforms, settlement and clearing systems), which facilitate greater capital market integration. The introduction of the euro as a single currency and the removal of the corresponding currency risk have further facilitated capital market integration.

3. OVERALL SIZE, GROWTH, AND DEPTH OF THE GLOBAL FINANCIAL STOCK

The global capital market continues to grow across all asset classes. This section provides an overview of the size, growth, and depth of the global financial stock, then describes the process of deepening.

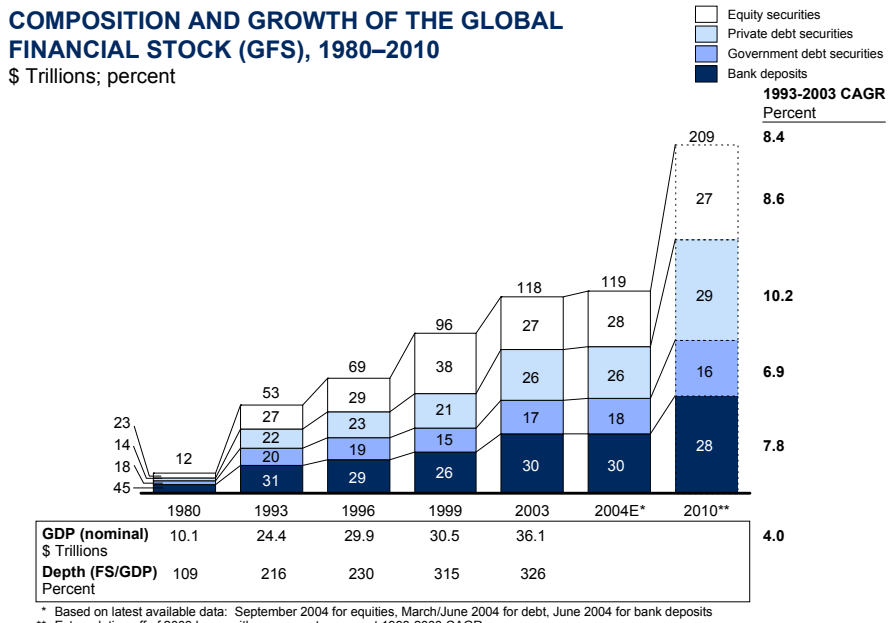
Size, growth, and depth

Our research shows the global financial stock reached $118 trillion in 2003, up from $53 trillion in 1993 and $12 trillion in 1980. Simple extrapolations would have the market exceeding $200 trillion by 2010 (Exhibit 3).

In addition to growing in absolute numbers, the global financial stock has grown relative to the underlying economy. While in 1980 the global capital market was roughly the size of global GDP (109 percent of GDP), it was double the size of global GDP by 1993 (216 percent), and more than triple the size of global GDP by 2003 (326 percent). Between 1993 and 2003, the global financial stock grew on average at 8.4 percent, more than twice as fast as the growth in global GDP of 4.0 percent. The differential growth rates of the global financial stock and world GDP result in financial deepening—a measure of the financialization of the global economy, quantified as the ratio of financial stock

Exhibit 3

COMPOSITION AND GROWTH OF THE GLOBAL FINANCIAL STOCK (GFS), 1980–2010
$ Trillions; percent



* Based on latest available data: September 2004 for equities, March/June 2004 for debt, June 2004 for bank deposits
** Extrapolation off of 2003 base, with components grown at 1993-2003 CAGRs
Note: 2004E shares do not add to 100% due to rounding error
Source: McKinsey Global Institute Global Financial Stock Database; World Federation of Stock Exchanges; Merrill Lynch; Global Insight

to underlying GDP (expressed either as percent of GDP or multiple of GDP; Exhibit 3).[4]

Financial deepening

Why is financial deepening occurring? Is it a healthy development? And will it continue? Overall, deepening occurs as economies and financial systems develop and it is a sign of improved financial intermediation. This beneficial process is largely driven by growth in bank deposits, equity securities, and private debt securities. Government debt deepening, on the other hand, represents an increase in liabilities that have been postponed to future generations.

[4] This ratio of financial stock to GDP is frequently used despite the fact that the financial stock is a "stock" concept, while GDP is a "flow" concept. While some analyses utilize fixed capital stock as a better stock comparable, we have chosen to use GDP because the measurement and understanding of gross fixed capital formation on a global scale are challenging. There are alternative definitions of financial deepening in the economic literature, for example as broad as money to GDP or credit to GDP, especially in developing countries where securities markets have not yet developed.

Why deepening occurs

Financial systems develop through the creation of institutions, instruments, and mechanisms that allow for intertemporal transfer of savings (or consumption) and efficient allocation of the savings pool available to investment opportunities. In other words, some households can postpone consumption and invest their savings, while other households, businesses, and governments can draw from these invested savings to raise capital and/or borrow money to fund attractive opportunities. In some developing markets, the only available savings instrument is a bank account and the only source of external funding is a bank loan. In developed markets, however, households can invest their savings in many instruments—bank accounts, stocks, bonds, or funds that repackage them—and borrowers can go to a bank, issue bonds, or raise equity in the public markets. Both investors and borrowers have greater choice in developed markets, which allows for better allocation of capital and risk.

Thus, equity securities, private debt securities, and bank deposits (which fund bank loans) facilitate capital intermediation and improve capital allocation. In contrast, government debt securities facilitate the redistribution of taxes across generations and, to a lesser degree, support the development of the private debt securities market.

Further, the development of a financial system and the inherent increase in financial instruments lead to financial stock growth beyond the growth of GDP. Many actions of businesses, governments, and households can increase financial stock independent of an increase in the real economy (Exhibit 4 lays out a framework for growth components by asset class and stakeholder). Within this framework, regions exhibit different patterns of financial deepening (see Section 4).

- **New equities.** The stock of equity securities increases both through businesses participating in the markets (i.e., privately held businesses going public, or publicly traded companies floating additional shares) and through government privatizations with their public offerings. In both cases, the financial stock increases independent of an increase in GDP (since the companies were already contributing to the GDP). What changes, however, is that the company is no longer under specific private or state control, but

Exhibit 4

FRAMEWORK FOR COMPONENTS OF FINANCIAL STOCK GROWTH

Asset class	Growth component	Impacted by actions of: Government	Business	Households
Equity securities	• Privatizations	X		
	• New stock issues		X	
	• Earnings growth		X	
	• P/E growth			X
Debt securities	• Increased government debt	X		
	• Increased private debt		X	
	• Securitization		X	
Bank deposits	• Increase in bank deposits (savings)		X	X
	• Increase in currency*			X

* Currency is very small relative to bank deposits

is under more general market control and its shares can be easily traded and valued.

- **Earnings and price-to-earnings ratio (P/E).** The value of the equity stock reflects the changing profitability, prospects, and risk assessment of publicly traded companies—i.e., the earnings and P/E. As equity valuations are forward looking, changes in expectations about the future can affect the value of the financial stock independent of GDP, which reflects only current activity.

- **Debt, government and private.** The stock of debt securities increases through issuance of government debt by governments and through increased issuance of private debt by businesses and financial institutions, without a direct link to underlying GDP. For example, if a person buys a house with a mortgage that the bank funds through issuing a mortgage-backed security (MBS), the net result is that an investor who bought the MBS has provided funding to the person who bought a house, without any underlying increase in GDP.

- **Securitization.** In addition, the debt financial stock increases through the process of securitization, which converts non-tradable loans into tradable debt instruments. Securitization in the US has increased the available capital for mortgages, which is otherwise constrained by the lending capacity of banks and thrifts. This makes home ownership more affordable, but again, there is no direct link to GDP.

- **Bank deposits.** The stock of bank deposits is impacted by households' decisions about how much to save and hold in bank deposits, and by businesses' decision about how large cash reserves (bank deposits) to build up.[5]

Benefits of financial deepening

While there is a general connection between the degree of economic development and financial depth, it is important to note that financial depth alone offers no indication either of the strength of any given economy or of the strength of its financial system. To illustrate, the financial depth of the US is more than twice that of Norway, although both countries have similar GDP per capita; Germany and Thailand have similar financial depth at greatly different income levels; also Japan, with a troubled financial system, exhibits very significant financial depth. In general, markets with similar per capita income and financial depth fall into clusters of financial system development, which illustrate the high-level link between financial system development and GDP levels[6] (Exhibit 5).

Financial deepening appears to be largely beneficial.

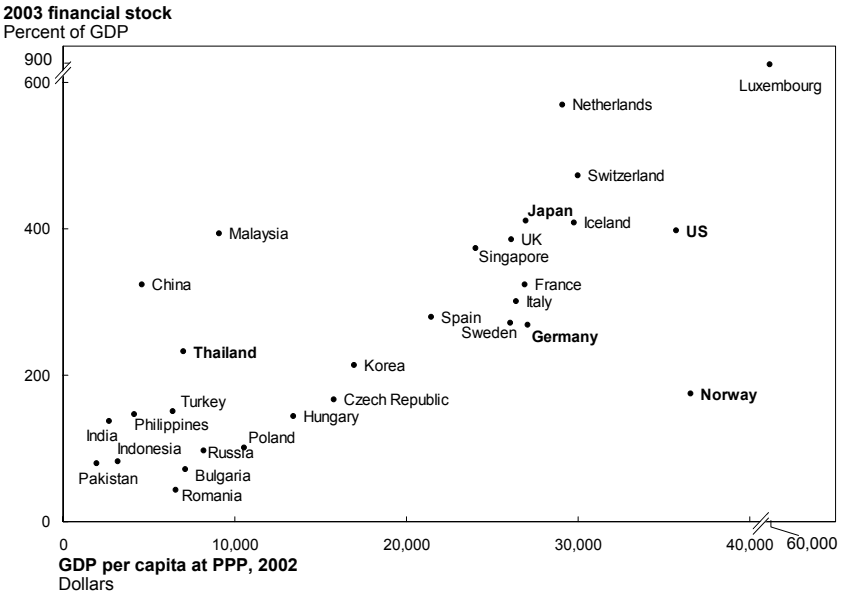
- **Financial deepening indicates improved access to capital.** Deeper financial systems tend to have a greater variety of financial institutions and instruments, providing users of capital with more choice and access. In

[5] Our bank deposit numbers include a small amount of currency in circulation that does not conform to the definition of bank intermediation, but it has minimal impact on our findings.

[6] Academic research has also established the link between financial system development and economic growth. For an overview of research see for example Farrokh Nouzad, "Financial development and productive efficiency," *Journal of Economics and Finance*; Volume 26, Number 2, Summer 2002.

Exhibit 5

LINK BETWEEN FINANCIAL DEPTH AND INCOME



Source: McKinsey Global Institute Global Financial Stock Database; The World Bank

countries like Chile, pension reforms have led to capital accumulation and financial deepening: residents are required to save and accumulate retirement assets, pension funds have become powerful institutional investors managing the growing retirement asset pools, and companies have gained easier access to the equity markets funded by these pools.

- **Financial deepening can improve allocation of risks.** More instruments and institutions allow for better matching of risks to appropriate risk takers. MBS in the US have allowed banks and thrifts to repackage their assets in a way that fits the risk requirements of new classes of investors, for example, insurance companies that are limited to investment-grade instruments. Given the long duration of both insurance liability and mortgage assets, MBS better match the risk profile of insurance companies than that of banks funded with short-term deposits.

Yet, in some instances, financial deepening may be accompanied by undesirable outcomes for the economy, as seen in price bubbles and excessive debt.

- **Financial deepening caused by asset price bubbles is unhealthy**, as market corrections can be painful. For example, in the case of equity valuations driven up by investor hype, the eventual burst can have serious consequences for the economy (as in a drop in aggregate demand, increased bankruptcies, and the like). The well-publicized crises in Japan, Southeast Asia, and Russia all had a negative impact on the underlying economies. The 1990s' equity market bubble in the US illustrates that even the most developed market is susceptible to negative activity, although the depth of the financial system prevented grave economic consequences. In addition, even before the burst, the wealth effect driven by rising asset prices and monetization of this new wealth can theoretically contribute to inflation. Unfortunately, it is very difficult to predict *ex ante* when a run up in asset prices represents a bubble.

- **Deepening caused by excessive leverage can be problematic.** Some degree of leverage (that is, debt burden) is desirable and beneficial for the economy, as it can fund value-creating projects and allow for intertemporal transfer of income. However, while markets are self-correcting—for example, pricing debt higher or even cutting off access to funding for those with higher leverage—individual instances of debt defaults can result in bankruptcy. One worrying instance of financial deepening is government debt expansion: excessive government debt can lead to economic stagnation because it can crowd out private lending and hamper growth; in its extreme, it can trigger a costly financial crisis (as it did in Argentina and Mexico, for example).

Prospects for further deepening

It is difficult to posit any natural limit to financial deepening. Given that the underlying growth components have not been exhausted, deepening is likely to continue for the foreseeable future in both developed and developing markets.

- **Privatizations and IPOs.** More firms (theoretically all) could become publicly traded through privatizations and IPOs. While in the US only a few remaining government-owned entities could potentially be privatized (for example, the postal service), other countries (China, Mexico, even France) still have significant state business ownership. Though cyclical, the IPO market in the

US is robust and is supported by a solid financial system and the venture capital industry. As more financial systems develop and make going public a viable funding option, IPOs should increase in developing economies.

- **Securitization** has room for expansion in terms of geography and available securitizable asset pools and classes. Securitization has largely been a US phenomenon. While Germany has long used a form of securitization, other European issues have become more significant only in recent years.[7] Finally, adoption in other parts of the world has been low. In many countries the mortgage loan markets, which fuel the securitization process, have great potential if developed. To put this in perspective, as of June 2004, total mortgages in the US reached $9.9 trillion, or 85 percent of GDP;[8] in contrast, Mexico's mortgage market represents only 5 percent of GDP. Further, $5.3 trillion of US mortgages were securitized, suggesting potential for further growth of securitized issues both in the US and globally. In the same way that mortgages were followed by car loans in the asset-backed securities universe, potentially all loan types could be pooled and securitized in the future.

- **Pension funds** are growing fast in countries that recently have made pension system reforms, but are still low relative to GDP (for example, Mexico, Argentina, and Brazil all have less than 15 percent of GDP in private pension fund assets); by contrast, in the US pension funds reached 63 percent of GDP in June 2004.[9] Thus, pension funds are another potential growth vehicle to accumulate savings and contribute to financial deepening in many countries.

[7] Securitization in the form of Pfandbriefe instruments has been an important factor in the German financial stock growth; see Chapter 3 for details.

[8] Federal Reserve Flow of Funds, Table L.217 for mortgage levels and Bureau for Economic Analysis for June 2004 GDP data.

[9] Includes $4.3 trillion in private defined benefit plans and defined contribution plans (including 401(k) type plans), $2.0 trillion of state and local government employee retirement funds, and $1.0 trillion in federal government retirement funds. Federal Reserve Flow of Funds, Tables L.119, L.120, and L.121 for retirement levels and Bureau for Economic Analysis for June 2004 GDP data.

4. ASSET COMPOSITION OF THE GLOBAL FINANCIAL STOCK

Our research aggregates four asset classes—equity securities, private debt securities, government debt securities, and bank deposits—and reveals interesting patterns of evolution over the past two decades.

- **Bank deposits.** The share of bank deposits in total global financial stock has shrunk, especially during the 1980s. In 1980, bank deposits made up 45 percent of the global financial stock; however, since the 1990s, the share of bank deposits has leveled out at 30 percent of GFS. Bank deposits' growth rate of 7.8 percent is lower than both the overall GFS growth of 8.4 percent and that of equity and private debt securities (8.6 and 10.2 percent, respectively), illustrating the long-term shift away from non-tradable financial assets to tradable ones (Exhibit 3). This trend is pronounced in most regions of the world, even in countries like China, where bank deposits still constitute the majority of the country's financial stock.

- **Equity.** In 1999, at the height of the equities market bubble, equity securities were the largest asset class in the global financial stock with 38 percent share. Since then, their share has fallen to 27 percent in 2003. The growth in equity securities stock has come through a combination of new issues, P/E increases, and earnings growth, with significant differences across countries. In the US, P/E increases since 1980 have been a meaningful source of equity stock growth, while in Europe growth has come mainly through earnings increases.[10] Moreover, in the US, IPOs are a significant source of financial stock growth, while in Europe most newly floated shares come through privatizations (Exhibits 3, 6–7).

- **Private debt.** The share of private debt securities in the total global financial stock has almost doubled from 14 percent in 1980 to 26 percent in 2003. Private debt securities are the fastest-growing asset class, growing at 10.2 percent annually and contributing 29 percent of the total increase in the GFS over the past 10 years. Private debt securities have driven growth in the UK and US, and securitization has been an important factor in the US (Exhibits 3, 8 9).

[10] However, this analysis is highly sensitive to start and end point as the P/Es are very volatile. In fact, the difference between the US and Europe is that after a P/E rally in the 1990s, the European P/Es largely reverted to 1980 levels, while US P/Es remained relatively high.

Exhibit 6

REGIONAL DIFFERENCES IN GROWTH COMPONENTS OF EQUITY SECURITIES STOCK, 1980–2003

Percent contribution to growth

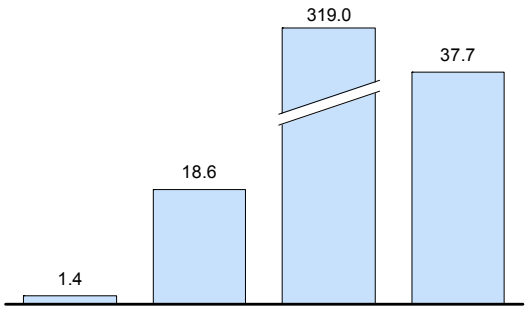
	US	UK	France	Germany	Italy	Japan
New issues	19	15	12	10	21	5
P/E-driven growth	36	9	4	4	0	5
Earnings-driven growth	45	**76**	**84**	**86**	**79**	**90**
CAGR	**10**	**11**	**15**	**13**	**15**	**10**

Source: McKinsey Global Institute Global Financial Stock Database; Datastream; Compustat; Bureau of Labor Statistics (BLS)

Exhibit 7

PRIVATIZATION OF STATE-OWNED ENTERPRISES THROUGH PUBLIC SHARE OFFERINGS*, 1993–2001

$ Billions



	US	UK	Eurozone	Japan
As share of GDP Percent	0.01	1.3	4.9	0.8
Share of all IPOs Percent	0.1	20	76	>90

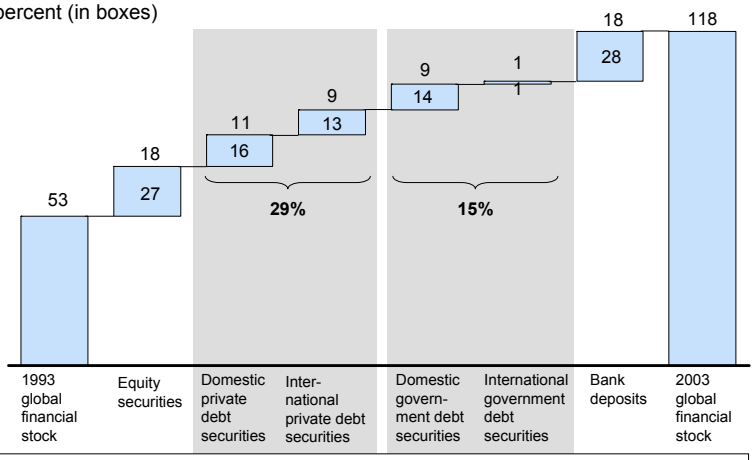
* New issues from privatizations calculated as (total privatization proceeds to government)*(share of proceeds coming from new stock issues); data on total privatization proceeds covered 1993-2001, and data on share of proceeds covered 1990-1999

Source: Organization for Economic Cooperation & Development (OECD); IMF

Exhibit 8

CONTRIBUTION TO GLOBAL FINANCIAL STOCK GROWTH BY ASSET CLASS, 1993–2003

$ Trillions; percent (in boxes)



1993-2003 CAGR Percent	**8.6**	**7.3**	**21.6***	**6.6**	**12.8***	**7.8**	

* Combined growth of total international securities was 20%
Note: Increases do not add up to $118 trillion and 100% due to rounding error
Source: McKinsey Global Institute Global Financial Stock Database

Exhibit 9

REGIONAL DIFFERENCES IN GROWTH COMPONENTS OF DEBT SECURITIES FINANCIAL STOCK, 1980–2003

Percent contribution to growth

	US	UK	France	Germany	Italy	Japan
Increased government debt	22	14	**61**	35	**59**	**75**
Increased private debt	42	**82**	39	29	39	24
Securitization	36	4	<1	36*	2	1
CAGR	**12**	**13**	**14**	**12**	**14**	**12**

* Almost all of it Pfandbriefe
Source: McKinsey Global Institute Global Financial Stock Database; Datastream; Compustat; BLS; Deutsche Bundesbank-Capital Market Statistics

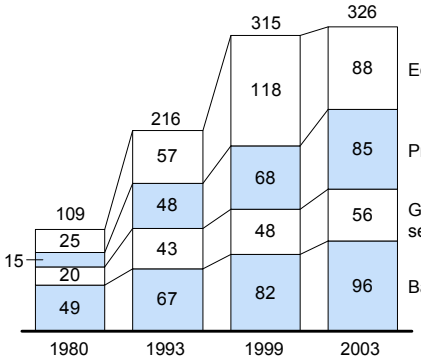
- **Government debt.** Government debt securities are the smallest asset class in the global financial stock (17 percent in 2003) and have grown the most slowly over the past 10 years (6.9 percent). In contrast to the 1980s when government debt expansion drove total financial stock growth, it has contributed only 15 percent of the total increase in the GFS over the past 10 years. Over the same period, government debt securities have been the predominant source of growth in Japan, while their role in the US and UK has been small (Exhibits 3, 8–9).

Finally, all asset classes have grown relative to global GDP. Private debt has increased the fastest relative to GDP (the ratio of private debt securities to GDP increased nearly sixfold, from 15 percent of GDP in 1980 to 85 percent in 2003); and private debt has contributed the most to the increase of financial depth. In contrast, government debt securities depth increased the least, from 20 percent of GDP in 1980 to 56 percent in 2003 (Exhibit 10). Significant geographical differences are discussed in the next section.

Exhibit 10

COMPONENTS OF GLOBAL FINANCIAL DEPTH, 1980–2003

Financial stock expressed as percent of GDP



	1980-2003 change		
	Multiple	Absolute*	Relative
	3.0x	217 =	100 =
Equity securities/GDP	3.5x	63	29
Private debt securities/GDP	5.7x	70	32
Government debt securities/GDP	2.8x	36	17
Bank deposits/GDP	2.0x	47	22

GFS is 3x deeper in 2003 than in 1980 driven largely by growth in private debt and equity

* In percentage points: e.g., the global depth for 2003 was 326 and for 1980 was 109, yielding 217 points increase
Note: Some numbers do not add up due to rounding error
Source: McKinsey Global Institute Global Financial Stock Database; Global Insight

5. INTEGRATION AND REGIONAL COMPOSITION OF THE GLOBAL FINANCIAL STOCK

Below the surface of the global aggregated picture of the GFS, there are interesting patterns in the relative importance and differential evolution of the regions comprising the GCM. Since the McKinsey Global Institute Global Financial Stock Database contains detailed data on 100-plus individual countries, we are able to take various views on a county and regional level.

In this section, we highlight the shifting regional composition of the GFS, some major contrasts across geographies, and the key findings from each of our in-depth regional analyses. We begin with a short discussion on capital market integration.

Integration

Despite major political and economic developments, financial crises, and a globalization backlash, the integration of the global capital market continues, as attested by cross-border activity, increased flows, and indications of price convergence.

- **Cross-border holdings** are growing. For example, the share of US financial assets owned by foreign investors has increased for equities, Treasuries, and private bonds. Even investment in domestic securities reflects capital deployed internationally for multinational corporations. One fourth of the US market cap is attributable to profits from foreign subsidiaries (Exhibits 11–12).

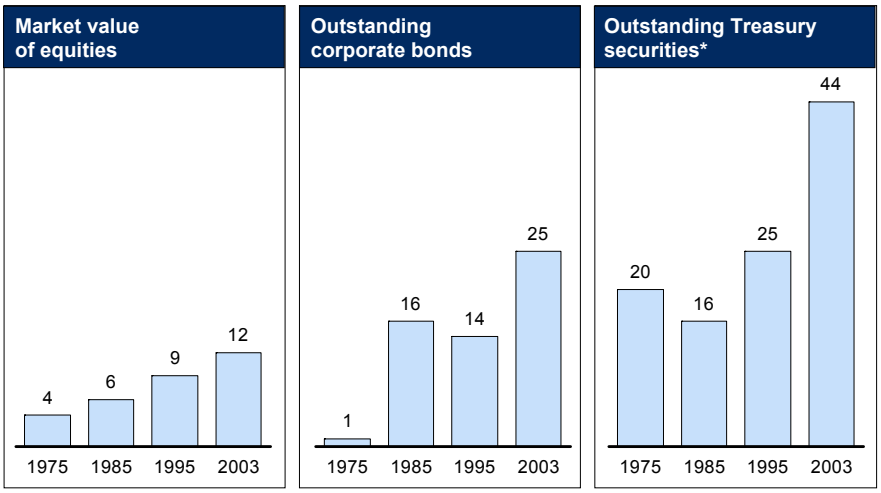
- **Cross-border flows** in both debt and equity are increasing. Debt issues are increasingly more international (that is, partially or entirely issued abroad). In fact, international debt has grown at three times the rate of the total financial stock while its share of total debt securities worldwide has grown from 3 percent to 9 percent. Equity portfolio flows are also increasing as investors buy more stocks abroad (cross-border equity flows) and as foreign companies make their shares available locally (e.g., through ADRs and cross listings; Exhibits 13).

- **Price convergence**, the ultimate sign of market integration, is also taking place. The foreign exchange markets were the first to integrate, and today arbitrage opportunities even in exotic currencies are instantly cleared by the market. In addition, burgeoning derivatives markets are linking regional

Exhibit 11

FOREIGN-OWNED US SECURITIES, 1975–2003

Percent



* Excluding Treasury securities held by the monetary authority

Source: Federal Reserve Flow of Funds

Exhibit 12

MARKET VALUE OF FOREIGN INCOME OF US MULTINATIONAL CORPORATIONS, 2002

$ Billions

Industry	Income from foreign affiliates	X	Applied P/E ratio	=	Market value of foreign income*
Manufacturing	31.3		23.4		732.4
Finance**	16.3		15.8		257.5
Petroleum**	10.2		15.4		157.1
Wholesale trade	13.2		17.6		232.3
Services and information**	3.2		21.2		67.8
Mining**	10.2		21.2		216.2
Other**,***	49.8		21.2		1055.8
Total US income from foreign affiliates	$134.2 billion				$2.7 trillion = ~1/4 of total US market cap

* As measured by income receipts from foreign affiliates, multiplied by relevant industry median or index P/E ratio

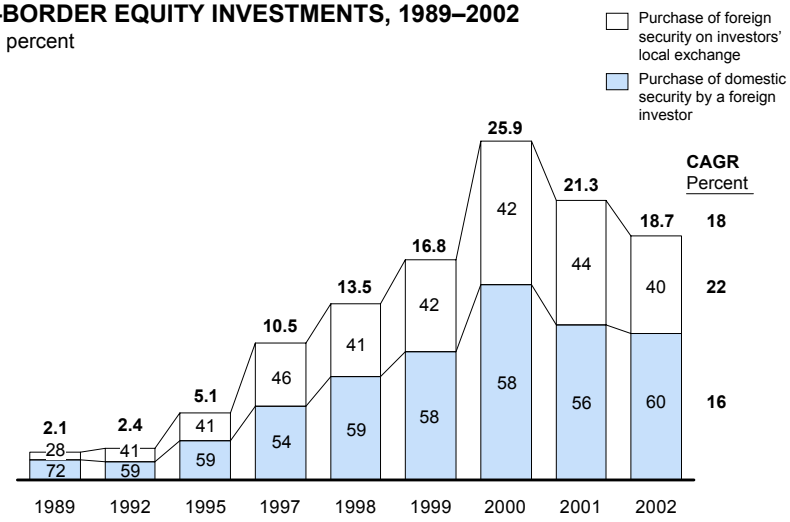
** P/E ratios calculated by averaging 2001-2004 industry medians, to remove cyclicality

*** Includes utilities, agriculture/forestry/fishing, construction, retail trade, real estate, transportation, management of nonbank companies and enterprises, accommodation, health care, and miscellaneous

Source: Bureau of Economic Analysis (BEA); Standard & Poor's (S&P) Analysts' Handbook Supplement; MGI analysis

Exhibit 13

CROSS-BORDER EQUITY INVESTMENTS, 1989–2002
$ Trillions; percent



Flows/world market cap Percent	18	22	29	45	50	47	80	77	80

Source: CrossBorder Capital; S&P Emerging Markets Factbook

markets across geographies; derivatives' notional principal value outstanding reached $149 trillion in 2003, up from a mere $9 trillion in 1993.[11]

Regional composition of the global financial stock and shifting roles

While each national market represents an interesting and unique story, from a global point of view, only a few regions dominate the GFS, in terms of size and growth. Understanding the dynamics in these few regions provides the context of the global capital market evolution.

- **Size.** Only a handful of regions can be said to move the needle. Four regions —the US, the eurozone, the UK, and Japan—account for 80 percent of the GFS, with the US contributing 37 percent of total. Interestingly, despite the attention paid to it, Latin America accounts for only 2 percent of the GFS.[12]

[11] International Swaps and Derivatives Association Market Survey. Note that derivatives are not included in our global financial stock figures.

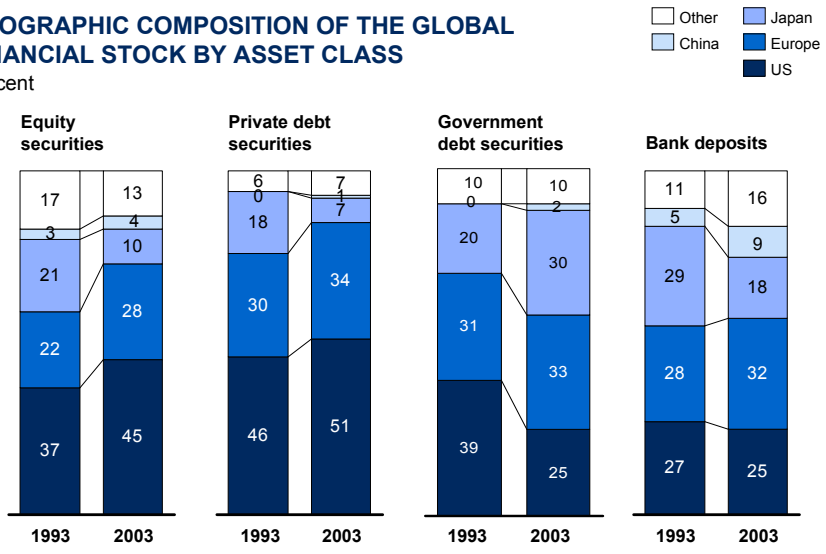
[12] Latin America here is defined as Latin American countries with 2002 financial stock exceeding $20 billion and includes Brazil, Mexico, Argentina, Chile, Colombia, Peru, and Venezuela.

- **Growth.** Several growth hot spots are shaping the evolution of the GFS. Specifically, China and parts of Europe are growing rapidly and may gain meaningful GFS shares within a decade. China is growing at 14.5 percent annually, and its global share of financial stock is increasing, especially in bank deposits where China's share has grown from 5 percent to 9 percent over the past 10 years. Eastern Europe is growing at 19.3 percent, fueled by brisk GDP growth of 8.9 percent per year since 1993, rapid development of the financial system, and integration with the rest of Europe. Finally, within the eurozone, we find high growth rates (in the range of 15 to 21 percent) in Spain, Ireland, Greece, and Portugal.

Differential growth rates lead to shifting importance in the GFS: the US remains a dominant player, especially in private debt and equity securities where it continues to gain share, but its role in the global government debt securities is shrinking; Europe is gaining global share across all asset classes; Japan is losing ground in all asset classes but government debt securities; and China is increasing its share across assets from a low starting point and already holds a formidable share of the global bank deposits (9 percent; Exhibit 14).

Exhibit 14

GEOGRAPHIC COMPOSITION OF THE GLOBAL FINANCIAL STOCK BY ASSET CLASS
Percent



Source: McKinsey Global Institute Global Financial Stock Database

Regional differences

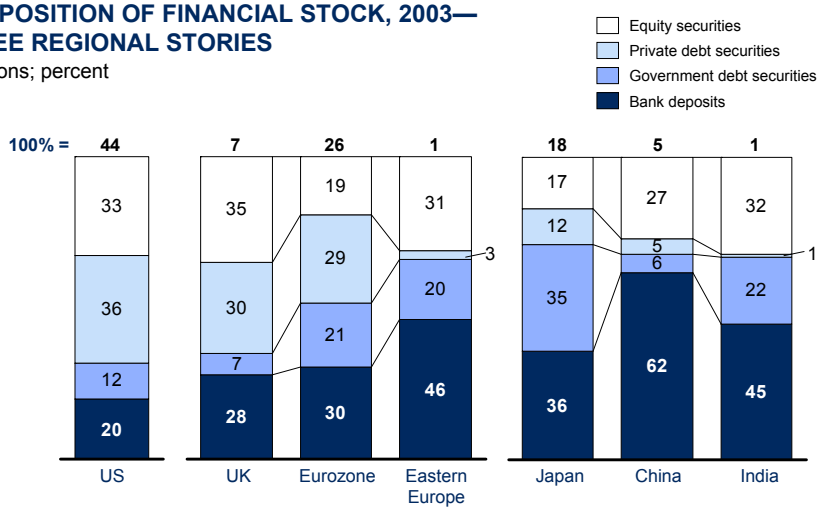
Regions vary significantly in asset composition, growth rates, and financial deepening.

- **Asset composition.** The US exemplifies a market-dominated system, with only a 20 percent share of bank deposits. On the other end of the spectrum is China, with clear banking system dominance (62 percent share of bank deposits). Other countries we have analyzed fall across the full spectrum in between (Exhibit 15).

Exhibit 15

COMPOSITION OF FINANCIAL STOCK, 2003—THREE REGIONAL STORIES

$ Trillions; percent



Depth (FS/GDP) Percent	397	385	314	99	411	323	137
CAGR Percent	8.6	11.3	9.8	19.3	4.0	14.5	11.9

Note: Some numbers do not add to 100% due to rounding error
Source: McKinsey Global Institute Global Financial Stock Database; Global Insight

- **Growth of asset classes.** Differential growth rates by asset class across countries can be seen in a "heat map." For example, private debt and equity securities in Eastern Europe are hot, growing at 26 and 56 percent, respectively. In contrast, Japan's private debt and equity markets are stagnant, as they have remained unchanged over the past 10 years (Exhibit 16).

Exhibit 16

REGIONAL VARIATION IN FINANCIAL STOCK GROWTH, 1993–2003

CAGR, percent

CAGR <8% (i.e., <1x GFS growth)
CAGR 8-16% (i.e., 1-2x GFS growth)
CAGR >16% (i.e., >2x GFS growth)

	US	UK	Eurozone	Eastern Europe	Japan	China	India
Equity securities	11	8	12	**56**	0	13	11
Private debt securities	11	**21**	11	**26**	0	**18**	0
Government debt securities	2*	5	8	**17**	12	**28**	14
Bank deposits	7	13	9	14	3	14	12

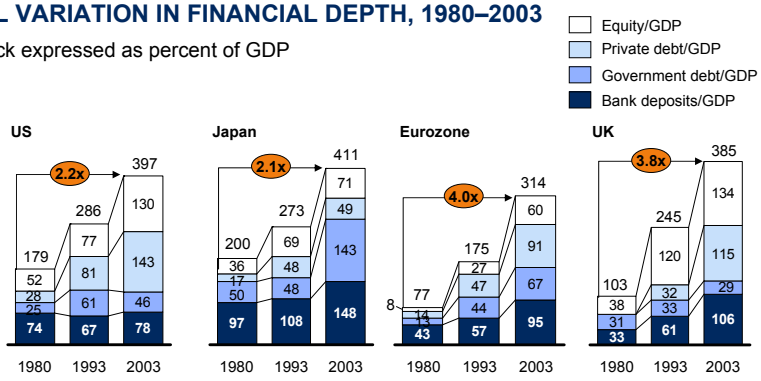
* The US government debt securities stock grew much faster in 2002 (8%) and 2003 (11%)
Source: McKinsey Global Institute Global Financial Stock Database

- **Financial deepening.** On one hand, the regions vary vastly in their overall depth levels: the US, the UK, and Japan have reached significant depths (397 percent of GDP in the US and 411 percent in Japan); while the eurozone, Eastern Europe, China, and India have lower financial depths. On the other hand, the nature of financial deepening is even more telling when making cross-regional comparisons. Despite the similar overall depths of the US and Japan, the nature of the financial depth in the two countries is strikingly different: Japan's deepening has been a product of government debt expansion and a stagnant GDP, while the US deepening resulted from an expansion of private securities during a period of robust economic growth. In fact, most of the deepening (86 percent) in the US has come through private debt and equity securities, while in Japan exactly the opposite has occurred, with 80 percent of the deepening coming from bank deposits and government debt securities (Exhibits 15, 17).

Exhibit 17

REGIONAL VARIATION IN FINANCIAL DEPTH, 1980–2003

Financial stock expressed as percent of GDP



1980-2003 change

	US		Japan		Eurozone		UK	
	Absolute*	Relative	Absolute*	Relative	Absolute*	Relative	Absolute*	Relative
Equity/GDP	78	36	35	17	52	22	96	34
Private debt/GDP	115	53	32	15	77	33	115	41
Government debt/GDP	21	10	93	44	54	23	-2	-1
Bank deposits/GDP	4	2	51	24	52	22	73	26
FS/GDP	**218**	**100**	**211**	**100**	**237**	**100**	**282**	**100**

* In percentage points: e.g., the US depth for 2003 was 397 and for 1980 was 179, yielding a 218-point increase

Note: Some numbers do not add up due to rounding error

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Global Insight

* * *

The remainder of this section lays out the key findings for each of these regions while the subsequent chapters describe our regional-level findings in detail (thus, the reader may directly go to the chapters of interest, which contain these same summaries plus the detailed discussion behind them).

US KEY FINDINGS

- **Size and growth.** The US accounts for the largest share of the global financial stock (37 percent of total GFS). The total US financial stock is now $44 trillion, more than double its size of 10 years ago and nearly nine times its size in 1980. The doubling over the past 10 years reflects a growth rate of 8.6 percent per annum since 1993, in line with the overall global rate of 8.4 percent.

- **Depth.** The size of the US financial stock relative to US GDP has increased from 179 percent in 1980, to 286 percent in 1993, to 397 percent in 2003. This depth exceeds that of the eurozone, but it is close to the depth in Japan. However, in contrast to Japan where the depth is largely driven by government debt expansion, the US financial depth is driven by the growth of private debt and equity securities.

- **Asset composition.** The US exemplifies the dominance of market-based financing and private securities. In contrast, bank intermediation and government debt securities play a smaller role than in the rest of the world.

  — **Private debt securities** are the largest asset class in the US financial stock (36 percent, compared to global average of 26 percent) and have grown faster than any other asset class (slightly more than 11 percent between 1993 and 2003). Two related processes have accelerated private debt securities growth: securitization and the activities of government-sponsored enterprises (GSEs).

  — **Equity securities** are the second largest asset class in the US (33 percent, which is higher than the global average of 28 percent) and have grown at 11 percent over the same period, with significant fluctuations. The increase in equity stock came mainly from earnings growth, but P/E increases and IPOs also have contributed meaningfully.

  — **Bank deposits** represent only 20 percent of the US financial stock, a much smaller share than the world's average of 30 percent. Further, they have grown more slowly than private debt and equity securities.

  — **Government debt securities** form the least important asset class in the US financial stock, with 12 percent share (as compared to 18 percent global share). They have grown at a mere 2 percent per year since 1993,

despite recent rapid expansion. The government has contributed modestly to the growth of US financial stock since 1980 (11 percent of increase), and even less since 1993 (only 4 percent).

- **Role in the global capital market.** The US acts as the hub in the global capital market. The US is a large, very liquid, deep, developed, and growing market fueled by the robust economic growth of the largest consumer economy in the world and by the special role of its currency. The US attracts the lion's share of cross-border equity flows, and foreigners hold an increasing share of its financial stock.

EUROPE KEY FINDINGS

- **Size and growth.** With 31 percent share, Europe is the second largest region in the global capital market behind the US. Europe's financial stock has reached $37 trillion in 2003, up from $3 trillion in 1980 and $14 trillion in 1993. This increase over the past 10 years reflects a growth rate of 9.9 percent, which exceeds that of the US and the world (8.6 and 8.4 percent, respectively).

- **Depth.** The depth of Europe's financial stock has increased considerably from 84 percent of GDP in 1980, to 182 percent in 1993, to 306 percent in 2003; however, the current figure falls short of the US depth of 397 percent. Depth varies across countries within Europe. The UK and the Netherlands have reached financial depth of 385 and 569 percent, respectively, reflecting their hub roles, while the financial depth of Eastern Europe is only 99 percent, reflecting the developing nature of its financial system.

- **Asset composition.** Bank deposits and private debt are the most important asset classes in Europe's financial stock, with respective shares of 30 and 28 percent of total. Unlike the US, Europe's financial stock comprises a higher share of bank deposits and government debt securities, and smaller shares of private equity and private debt securities (24 and 18 percent, respectively). Private securities have grown fastest since 1993 (11.5 percent for private debt and 11.0 percent for equity securities). In contrast, government debt securities have grown slowest, at 7.6 percent.

- **Growth components.** The contribution of individual growth components to overall financial stock increase varies at the country level. Governments made the greatest contributions to growth in debt securities outstanding in France and Italy (61 and 59 percent, respectively) while the private sector made the greatest contributions in the UK and Germany (82 and 65 percent, respectively). Securitization (in the form of Pfandbriefe) was a meaningful contributor to growth only in Germany.

  Equities grew mostly through increase in earnings (from 76 percent of equity growth in the UK to 86 percent in Germany), while new issues made a modest contribution (ranging from 10 percent in Germany to 21 percent in Italy). Privatization of state-owned enterprises has been the primary source of new issues in the eurozone, and has also contributed to IPOs in the UK. Finally, increases in P/Es have made only a limited impact on financial stock growth between 1980 and 2003.

- **Subregional composition.** We see four interesting stories within Europe:

  — The eurozone contributes 69 percent of the financial stock and is integrating through its single currency. The geographic composition of eurozone's financial stock reveals the dominance of its largest economies (Germany, France, and Italy), the emerging role of the Netherlands as a regional debt hub, and the fast growth of smaller economies (Spain, Ireland, Greece, and Portugal).

  — The UK, with 19 percent of Europe's total financial stock, is Europe's financial hub and plays a unique role in the global capital market, especially for foreign exchange and Eurobonds. Like the US, the UK's financial stock is dominated by equities and private debt securities. What is unique to the UK is the large share of international private debt securities, illustrating its hub role in Europe.

  — Switzerland is Europe's (and the world's) private bank. The financial stock of the country is only half the size of assets under management.

  — Eastern Europe is one of the growth hot spots in the global capital market, growing at almost 2.5 times the global rate (19.3 percent versus 8.4 percent). It will likely be a source for additional growth for Europe in

the future as its financial systems develop and its depth converges to Western European levels.

ASIA KEY FINDINGS

- **Size and growth.** After growing slower than the global average rate over the past 10 years (6.0 percent versus 8.4 percent per year), and thus consistently losing share in the global financial stock, Asia now commands 23 percent ($27 trillion) of the global financial stock. Growth rates vary widely within Asia, with Japan at 4.0 percent per year, Korea at 11.2 percent, and China at 14.5 percent.

- **Depth.** Similar to other regions, Asia's depth has increased from 230 percent in 1993 to 330 percent in 2003. However, the drivers behind this deepening, as well as its significance, are quite different in the various parts of Asia.

- **Asset composition.** Compared to the US and Europe, bank deposits constitute a higher share of Asia's total financial stock, accounting for 41 percent of total. Government debt securities and equity securities represent 26 and 22 percent, respectively. Private debt securities are the smallest asset class with 11 percent share of total.

- **Growth components.** In contrast to the US, where equity and private debt securities drove the increase in financial stock, in Asia bank deposits and government debt securities were the dominant growth components, contributing 42 and 40 percent of the total financial stock increase since 1993, respectively.

- **Regional composition.** The four countries in Asia we analyzed in depth, Japan, China, India, and Korea, have each experienced different developments over the past two decades:

  — **Japan** remains an important part of the global capital market, although its role is rapidly diminishing. Within Asia, it has the anchoring role in Asia's financial system, accounting for two thirds of the entire Asian financial stock. The bulk of Japan's financial stock growth comes from government debt expansion (growing at 12 percent per year, or three times the overall

growth rate of Japan's financial stock), while the equity and private debt securities markets have stagnated.

— **China** has emerged as an important player in the global capital market. It is one of the global growth hot spots, growing nearly twice as fast as the world average (14.5 percent per year since 1993) and gaining global share in every asset class. Further, it commands a meaningful share of the global bank deposits (9 percent) and has become the country with the second largest financial stock in Asia ($5.1 trillion, or 19 percent of Asia's total).

— **India** is often compared to China for its rapid economic development. However, in the context of the global financial stock, the importance of India is still not apparent: its financial stock is one sixth that of China, its depth is a fraction of China's (137 percent of GDP versus 323 percent), and it grows at a slower pace (11.9 percent versus 14.5 percent). This finding is surprising given India's Anglo-Saxon heritage and institutional setup.

— **Korea** is also behind China in the context of the global financial stock, despite its relatively well-developed capital markets. Korea's financial stock is the third largest in Asia, accounting for 5 percent of the total (while China's share is 19 percent). Korea has recovered from the financial crises in the region and has seen its financial stock grow at a brisk 11.2 percent per year between 1993 and 2003.

2. US Findings

The capital market of the US is of great interest because of its size as the largest national market in the world, its special hub role in the global capital market, and its reference function as the benchmark for market development. In the past 10 years, the US market continued its robust growth, fueled by expansion in private debt securities and undeterred by the boom-and-bust of the equity market bubble. Notably, the US financial stock is dominated by private equity and debt securities to a much greater extent than other markets in the world, with a limited role played by US government debt securities.

This chapter illuminates some of our findings regarding the US and is organized in these sections:

1. Key findings
2. Context
3. Overall size, growth, and financial depth of the US financial stock
4. Asset composition of the US financial stock
5. Role of the US in the global capital market.

Intepretation of Our Results

We define financial stock as the sum of equity securities, private and government debt securities, and bank deposits. Thus, a financial stock represents the capital that is intermediated through the securities markets and the banking system in a given economy.

Two important distinctions underlie the findings in this report: intermediation by markets versus banks, and government debt securities versus other asset classes.

1. Market intermediation versus bank intermediation (also tradable versus non-tradable instruments)

The stock of equity and debt securities represents the degree of *market intermediation* in an economy, since they are the instruments used by the financial market to directly match up those who want to invest money with those who want to raise capital. Because equity and debt securities may be traded on the markets, we often refer to them collectively as *tradable instruments* (although depending on their liquidity and turnover, some securities may not be actually traded).

In contrast, the stock of bank deposits represents the degree of *bank intermediation* in an economy, since bank deposits are the capital that the banking system channels from savers to borrowers (simplistically speaking, bank deposits fund bank lending). Since capital intermediated through the banks is less easily transferable than stocks or bonds, we refer to bank deposits as *non-tradable*.

In general, governments have greater ability to regulate the banking sector than they do the financial markets. Thus, the degree of government control over the financial system bears an important relation to the extent of bank intermediation.

Note: Our bank deposit numbers include a small amount of currency in circulation that does not conform to the definition of bank intermediation; however, it has minimal impact on our findings.

2. Government debt securities versus other asset classes

Equity securities, private debt securities, and bank deposits (which fund bank loans) are the main classes of instruments for intermediating capital between borrowers on one hand and investors and savers on the other. As these three elements of the financial stock increase, the economy becomes more efficient at allocating capital to its best use.

Government debt securities are quite different. They function more as an instrument to redistribute taxes across generations than as a means to allocate capital from savers to borrowers. Although a well-developed market for government debt securities supports the development of a private debt securities market, government debt does not *directly* help firms to raise capital and grow.

The distinction between government debt and the other asset classes is not always clear cut. For example, in some developing countries the government may direct bank lending, support bank balance sheets, control corporate activity, or guarantee corporate debt. In such cases, a portion of bank deposits and corporate debt may be a disguised form of government debt.

Because of such differences across asset classes, cross-regional comparisons are meaningful only when the size of a financial stock is understood relative to its *composition*. For example, a large financial stock dominated by government debt securities is a sign of a high degree of future generation liabilities, rather than a sign of more efficient capital allocation.

1. KEY FINDINGS—US

- **Size and growth.** The US accounts for the largest share of the global financial stock (37 percent of total GFS). The total US financial stock is now $44 trillion, more than double its size of 10 years ago and nearly nine times its size in 1980.[1] The doubling over the past 10 years reflects a growth rate of 8.6 percent per annum since 1993, in line with the overall global rate of 8.4 percent.

- **Depth.** The size of the US financial stock relative to US GDP has increased from 179 percent in 1980, to 286 percent in 1993, to 397 percent in 2003. This depth exceeds that of the eurozone, but is close to the depth in Japan. However, in contrast to Japan, where the depth is largely driven by government debt expansion, the US financial depth is driven by the growth of private debt and equity securities.

- **Asset composition.** The US exemplifies the dominance of market-based financing and private securities. In contrast, bank intermediation and government debt securities play a smaller role than in the rest of the world.

  — **Private debt securities** are the largest asset class in the US financial stock (36 percent, compared to global average of 26 percent) and have grown faster than any other asset class (slightly more than 11 percent between 1993 and 2003). Two related processes have accelerated private debt securities growth: securitization and the activities of government-sponsored enterprises (GSEs).[2]

  — **Equity securities** are the second largest asset class in the US (33 percent, which is higher than the global average of 28 percent) and have grown at 11 percent over the same period, with significant fluctuations. The increase in equity stock came mainly from earnings growth, but P/E increases and IPOs also have contributed meaningfully.

[1] All dollars are current US dollars. All growth rates are nominal growth rates based on financial stock numbers expressed in current US dollars; thus, they reflect inflation and exchange rate shifts.

[2] Government National Mortgage Association (GNMA), Federal National Mortgage Association (FNMA), Federal Home Loan Management Corporation (FHLMC).

— **Bank deposits** represent only 20 percent of the US financial stock, a much smaller share than the world's average of 30 percent. Further, they have grown more slowly than private debt and equity securities.

— **Government debt securities** form the least important asset class in the US financial stock, with 12 percent share (as compared to 18 percent global share). They have grown at a mere 2 percent per year since 1993, despite recent rapid expansion. The government has contributed modestly to the growth of US financial stock since 1980 (11 percent of increase), and even less since 1993 (only 4 percent).

- **Role in the global capital market.** The US acts as the hub in the global capital market. The US is a large, very liquid, deep, developed, and growing market fueled by the robust economic growth of the largest consumer economy in the world and by the special role of its currency. The US attracts the lion's share of cross-border equity flows, and foreigners hold an increasing share of its financial stock.

2. CONTEXT—US

To provide context for the development of the financial stock in the US we highlight a few facts around the US economy, recent developments in its financial market, and the degree of integration within the financial system.

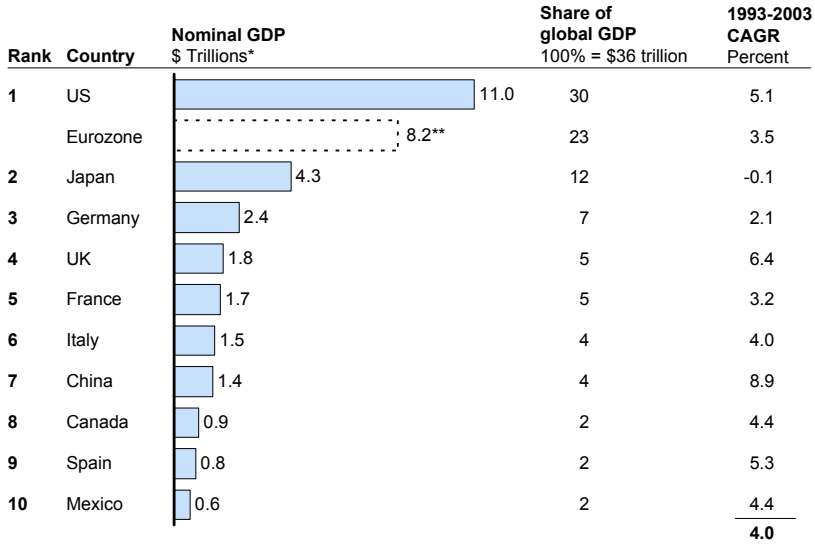
Economic facts

At $11 trillion, the US is by far the largest national economy in the world (Exhibit 1). It has grown steadily despite cyclical slowdowns: the 1990s were marked by robust growth, which ended with the burst of the equity market bubble in 2000. A recession started in March of 2001, but it was relatively short-lived; following economic stimulus measures, the country resumed its growth in 2003. Overall, the US GDP grew by 5.0 percent per year between 1993 and 2003 (as compared to 0.1 percent growth in Japan, 3.5 percent growth in the eurozone, and 4.4 percent growth in Europe as a whole).[3] Even during the recession of the early 2000s, consumer spending continued to grow, unlike during previous downturns.

[3] All GDP growth figures in this report are in nominal terms.

Exhibit 1

TOP 10 CONTRIBUTORS TO GLOBAL GDP, 2003



* All dollars throughout this report are US dollars

** We use Europe as a comparative region in this report, including the eurozone, the UK, Switzerland, Sweden, Denmark, Norway, and all of Eastern Europe; the combined 2003 GDP of these countries was $12.1 trillion, or 33% of the global GDP, with 4.4% 1993-2003 CAGR

Source: Global Insight; MGI analysis

Recent developments

The biggest recent development in the US financial market was the unprecedented equity market growth driven by technology, media, and telecom stocks during the 1990s and the subsequent bubble burst in 2000. In addition, a wave of corporate governance scandals shook the markets—the likes of Enron, WorldCom, and Global Crossing—and led to massive revision of profit expectations and stricter securities regulation (e.g., Sarbanes-Oxley legislation).

Fluctuations in foreign exchange rates also affect the US financial stock, especially in its relative size and growth when compared to other regions (see Box).

Integration

Finally, in light of the cross-regional comparison of the degree of integration of financial markets, it is important to note that the US is truly a single market, unlike both Europe, where the process of unification is still under way, and Asia, where there is little cross-country integration.

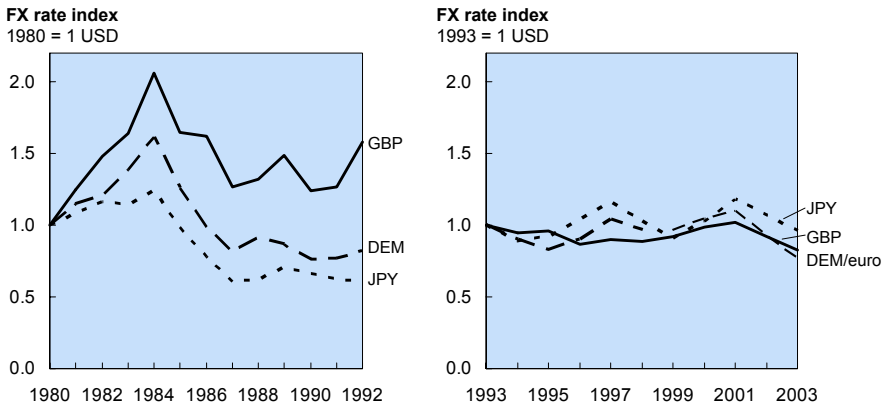
Foreign Exchange Rate Fluctuations

We express the financial stock of all countries in US dollars (to aggregate the national stocks on a global level), so foreign exchange rate dollar fluctuations against major currencies play a role in our findings on the relative size and growth of financial stock among regions in the global capital market.

Overall, exchange rate fluctuations since 1993 have been tamer than the 1980s. However, the US dollar has significantly depreciated against the euro, the British pound, and the Japanese yen since end-2001. Consequently, our findings potentially overstate the growth rates and relative sizes of the eurozone, the UK, and Japan, since these reflect not only the growth and size of the underlying financial stock in local currency, but also the impact of currency rate translation (Exhibit 2).

Exhibit 2

FOREIGN EXCHANGE RATES AGAINST THE US DOLLAR



Exchange rate USD equivalent	2001	2003
GBP*	1.45	1.79
EUR*	0.89	1.25
JPY	131.80	107.10

* Expressed conventionally; the chart has these values converted in terms of 1 USD = X foreign currency units

Source: International Monetary Fund (IMF) International Financial Statistics exchange rates – national currency per US dollar (end of period average)

To illustrate the impact of foreign exchange fluctuations, the 32 percent annual growth of eurozone bank deposits, expressed in US dollars 2001–2003, can be disaggregated into 10.3 percent annual growth in underlying bank deposit stock expressed in euros and 19.7 percent of annual growth in the foreign exchange rate of the euro against the dollar.

3. OVERALL SIZE, GROWTH, AND DEPTH OF THE US FINANCIAL STOCK

The US is the largest single market in the world, accounting for 37 percent of the global financial stock. The US financial stock stood at $44 trillion in 2003, up from $5 trillion in 1980 and $19 trillion in 1993 (Exhibit 3). Despite the volatility occasioned by the equity market boom-and-bust, the US financial stock more than doubled over the past 10 years, growing at 8.6 percent between 1993 and 2003, a rate comparable to that of Europe and much faster than that of Japan[4] (Exhibit 4).

The size of the US financial stock relative to US GDP has increased from 179 percent in 1980, to 286 percent in 1993, to 397 percent in 2003 (Exhibit 5). This financial depth is among the greatest in the world; it exceeds the depth in the eurozone and is close to the depth in the UK and Japan. However, when making cross-regional comparisons, one must keep in mind the underlying composition of the financial stock. Despite the similar overall depths of the US and Japan (397 percent versus 411 percent) the nature of the financial depth in the two countries is strikingly different: Japan's deepening has been a product of government debt expansion and a stagnant GDP, while the US's deepening resulted from an expansion of private securities that outstripped the growth of its vibrant economy (Exhibit 6). Thus, the quality of financial deepening in the US surpasses that of Japan as it reflects increased efficiency of the financial system rather than mounting obligations to future generations.

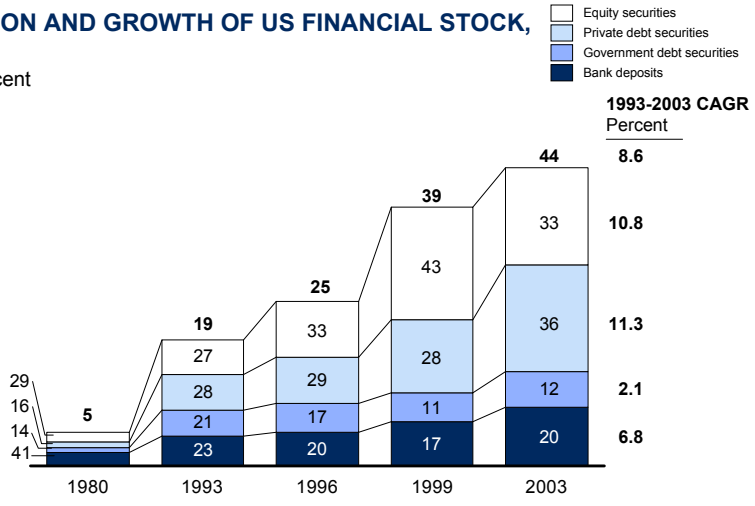
As discussed in Chapter 1, financial deepening accompanies the development of financial systems as the increase in financial instruments leads to financial stock growth beyond the growth of GDP. The US financial stock is already far along this process and will likely continue to deepen in the future. What is more significant for the global capital market is that the US foreshadows what may happen in other parts of the world. We see at least three potential sources of further deepening in the rest of the world: securitization, accumulation of pension funds, and privatization.

[4] As discussed, growth rates are very sensitive depending on start and end year and must also be put in the context of foreign exchange movements. For example, in the period 1993 to 2003 Europe's financial stock grew faster than the US; but if we calculated the growth rates for 1993 to 2002 instead, the US stock grew faster.

Exhibit 3

COMPOSITION AND GROWTH OF US FINANCIAL STOCK, 1980–2003

$ Trillions; percent



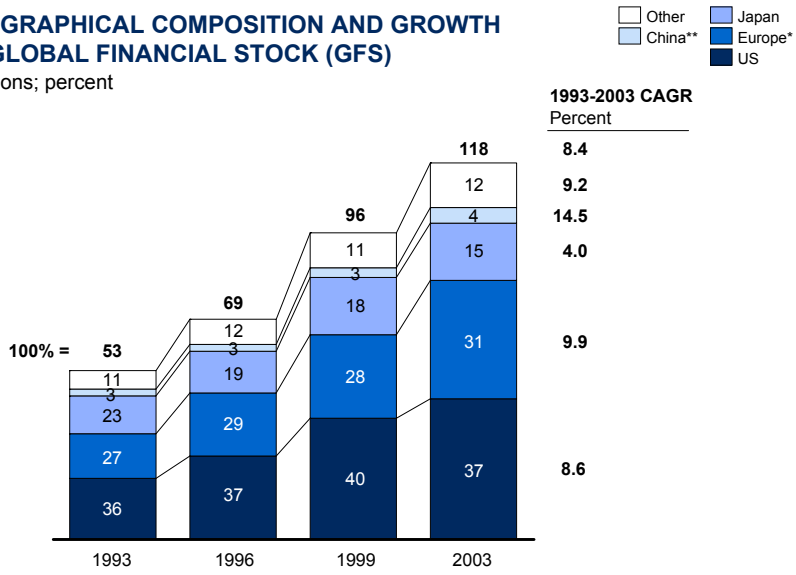
	1980	1993	1996	1999	2003	1993-2003 CAGR, Percent
GDP (nominal) $ Trillions	2.8	6.7	7.8	9.3	11.0	5.1
Depth (FS/GDP) Percent	179	286	324	418	397	

Note: 1993, 1996, 1999, and 2003 shares do not add to 100% due to rounding errors
Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Global Insight

Exhibit 4

GEOGRAPHICAL COMPOSITION AND GROWTH OF GLOBAL FINANCIAL STOCK (GFS)

$ Trillions; percent

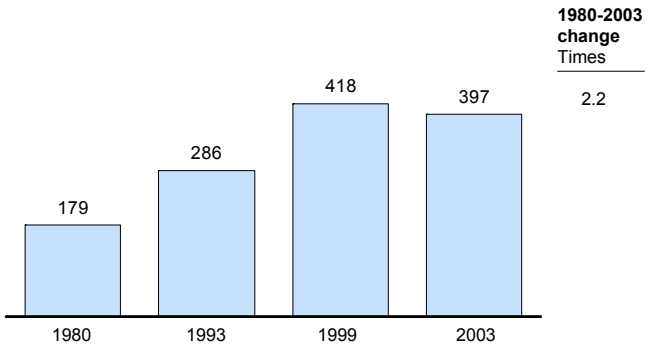


* Europe includes the UK, the eurozone (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain), Switzerland, Sweden, Denmark, Norway, and Eastern Europe
** China also includes Hong Kong and Macao
Note: 2003 shares do not add to 100% due to rounding error
Source: McKinsey Global Institute Global Financial Stock Database

Exhibit 5

DEPTH OF US FINANCIAL STOCK, 1980–2003

Financial stock expressed as percent of GDP



Compare with

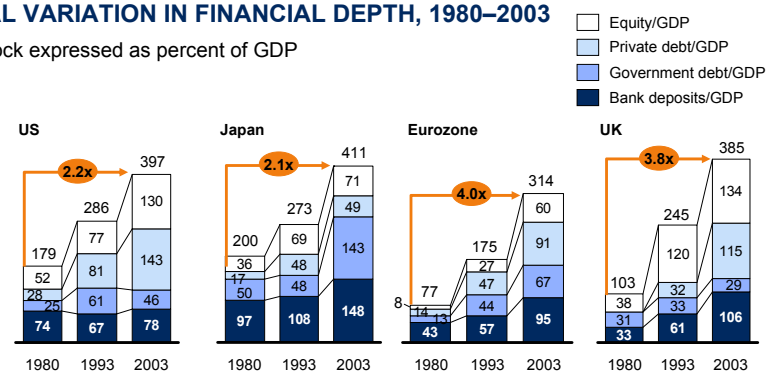
UK	103	245	407	385	3.8
Eurozone	77	175	262	314	4.0
Japan	200	273	387	411	2.1

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Global Insight

Exhibit 6

REGIONAL VARIATION IN FINANCIAL DEPTH, 1980–2003

Financial stock expressed as percent of GDP



1980-2003 change	Absolute*	Relative	Absolute*	Relative	Absolute*	Relative	Absolute*	Relative
Equity/GDP	78	36	35	17	52	22	96	34
Private debt/GDP	115	53	32	15	77	33	115	41
Government debt/GDP	21	10	93	44	54	23	-2	-1
Bank deposits/GDP	4	2	51	24	52	22	73	26
FS/GDP	**218**	**100**	**211**	**100**	**237**	**100**	**282**	**100**

* In percentage points: e.g., the US depth for 2003 was 397 and for 1980 was 179, yielding a 218 points increase
Note: Some numbers do not add up due to rounding error
Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Global Insight

- **The process of securitization** (that is, pooling financial assets and issuing debt securities backed by them) has become an important source of new debt issues in the US.[5]

  — The universe of securitized assets has steadily increased. It now includes various residential and commercial mortgage-backed securities (MBS) issued by GSEs and other private institutions, and various consumer and commercial asset-backed securities (ABS) (Exhibit 7). While securitization is also picking up in Europe and Japan, the process has not yet penetrated other parts of the world.[6]

Exhibit 7

VARIETY OF SECURITIZED ASSETS IN THE US

	Consumer/residential	Commercial
Mortgage-backed securities (MBS)	• Standard mortgages • Prime jumbo • Alt-A • Subprime/home equity • Net interest margin securitizations (NIMs) • Manufactured housing	• Multiborrower transactions • Single borrower transactions • Large loan transactions • Multifamily properties • Retail properties • Office and industrial properties • Hotel properties
Asset-backed securities (ABS)	• Auto lease • Auto loans – prime • Auto loans – subprime • Credit cards – prime • Credit cards – retail • Credit cards – subprime • Student loans • Timeshare receivables	• Equipment loans/leases • Aircraft • Dealer floor plan • Tobacco settlements • Franchise loans • Rental fleet finance • Small-business loans • Stranded costs

Source: FitchRatings

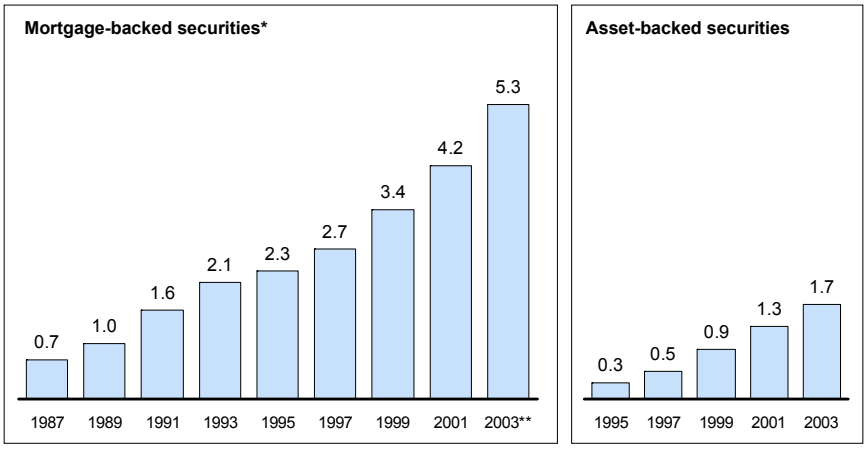
[5] A broader definition of securitization addresses the greater degree of financialization in the economy, and includes the process of companies floating equity and debt securities instead of funding themselves through bank loans.

[6] Securitization in the form of Pfandbriefe instruments has been an important factor in the German financial stock growth; see Chapter 3 for details.

— At the end of 2003, securitized debt in the US reached $7.0 trillion, including $3.5 trillion of agency MBS, $1.0 trillion of agency collateralized mortgage obligations (CMO), $0.8 trillion of non-agency MBS, and $1.7 trillion of ABS (Exhibit 8). In fact, in the first half of 2004, for the first time in history the volume of new securitized corporate issues outstripped the volume of new issues of non-securitized corporate debt.[7]

Exhibit 8

GROWTH OF SECURITIZED ASSETS IN THE US
$ Trillions



* Includes data for agency MBS, agency collateralized mortgage obligations (CMO), and non-agency MBS
** Includes $3.5 trillion of agency MBS, $1.0 trillion of agency CMO, and $0.8 trillion of non-agency MBS
Source: Bond Market Association; *Inside MBS & ABS*; MGI analysis

— Well-developed mortgage markets in the US are fueling MBS securitization. As of June 2004, total mortgages in the US reached $9.9 trillion, or 85 percent of GDP, of which $5.3 trillion are securitized.[8] In contrast, the mortgage market is underdeveloped in many developing countries (for example, only 5 percent of GDP in Mexico) suggesting room for growth.

[7] Federal Reserve Flow of Funds, Table F.212.

[8] Federal Reserve Flow of Funds, Table L.217 and Bureau for Economic Analysis.

- **Pension funds** are amassing sizeable pools of investable assets in the US, reaching $7.3 trillion (63 percent of GDP) in June 2004.[9] Pension funds are growing fast in countries with recent pension system reforms, but are still low relative to GDP (for example, Mexico, Argentina, and Brazil all have less than 15 percent of GDP in private pension fund assets).

- **Privatization** has largely run its course in the US, but can still provide a significant source of deepening in other parts of the world. In the US, few government-owned companies could potentially be privatized (for example, the postal service), as opposed to countries with significant state business ownership (China, Mexico, India, and even developed countries in Europe).

4. ASSET COMPOSITION OF THE US FINANCIAL STOCK

Private debt and equity securities dominate the US financial stock in terms of their share of asset composition and their contribution to financial stock increase and to corresponding financial deepening. Bank deposits and government debt securities play a small role.

Private debt securities

Private debt securities[10] are the most important asset class in the US. They account for the largest share of the US financial stock (36 percent, compared to the global average of 26 percent) and have grown faster than any other asset class over the period 1993 to 2003 (11.3 percent; Exhibit 3). On a global level, US private debt securities account for 51 percent of all private debt securities in the world, up from 46 percent in 1993. In contrast, Japan's share has fallen from 18 percent to 7 percent over the same period (Exhibit 9).

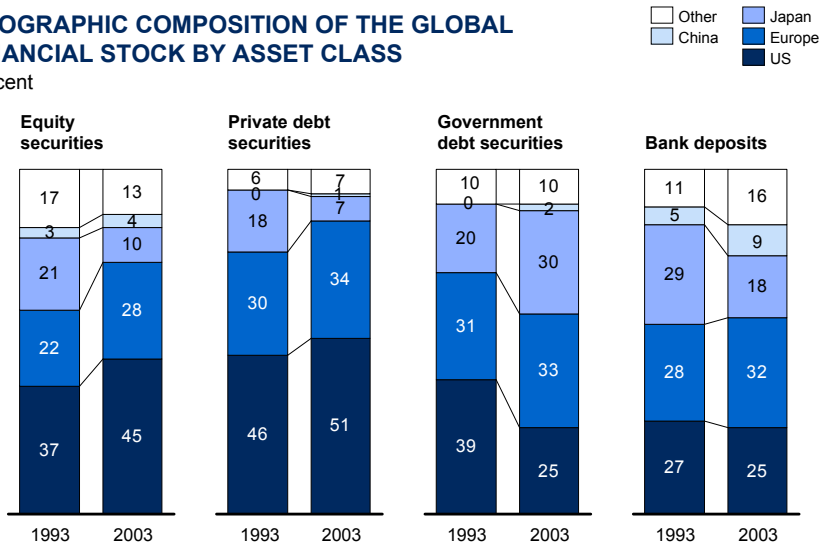
[9] Includes $4.3 trillion in private defined benefit plans and defined contribution plans (including 401(k) type plans), $2.0 trillion of state and local government employee retirement funds, and $1.0 trillion in federal government retirement funds. Federal Reserve Flow of Funds, Tables L.119–121 and Bureau for Economic Analysis.

[10] Private debt securities in the US include those issued by corporations and financial institutions, including the agencies GNMA, FNMA, and FHLMC.

Exhibit 9

GEOGRAPHIC COMPOSITION OF THE GLOBAL FINANCIAL STOCK BY ASSET CLASS

Percent



Source: McKinsey Global Institute Global Financial Stock Database

Further, private debt securities contributed 42 percent of the total increase in the US financial stock over the past 10 years—37 percent through growth in securities issued by financial institutions, and 5 percent through securities issued by corporations (Exhibit 10). They contributed 39 percent of the overall increase since 1980; securitization alone contributed 18 percent, mainly through GSE activity.[11] (See Exhibit 11, which breaks out the overall growth in the US financial stock since 1980 by component).

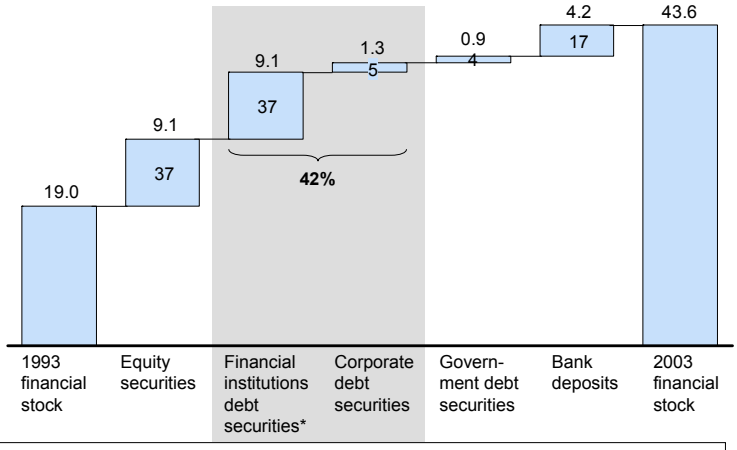
Finally, private debt securities contributed 53 percent of the increased depth in the US since 1980, increasing from 28 percent of GDP in 1980 to 143 percent of GDP in 2003 (Exhibit 12).

[11] GNMA, FNMA, and FHLMC.

Exhibit 10

CONTRIBUTION TO US FINANCIAL STOCK GROWTH BY COMPONENT

$ Trillions; percent (in boxes)



1993-2003 CAGR Percent	10.8	13.1	5.9	2.1	6.8

* Including MBS issued by Government National Mortgage Association (GNMA), Federal National Mortgage Association (FNMA), Federal Home Loan Management Corporation (FHLMC)

Source: McKinsey Global Institute Global Financial Stock Database

Exhibit 11

CONTRIBUTION TO US FINANCIAL STOCK GROWTH BY COMPONENT, 1980–2003

$ Trillions

Asset class	Component	Government	Private sector: Business	Private sector: Households	Private sector: Total	Share Percent	
Equity securities	• New issues	–	2.4	–		6	
	• P/E growth	–	–	4.7	12.8	12	33
	• Earnings growth	–	5.7	–		15	
Private debt securities	• Increased private debt	–	*8.0*	–		21	
	– Non-ABS corporate		6.5				
	– Government-sponsored enterprise (GSE) debt*		1.5		14.9		39
	• Securitization	–	*6.9*	–		18	
	– ABS		2.5				
	– GSE MBS		4.4				
Government debt securities	• Increased government debt	4.3	–	–	4.3	11	
Bank deposits	• Increase in currency	–	–	0.6		1	
	• Increase in business bank deposits	–	1.4	–	6.5	4	17
	• Increase in HH bank deposits	–	–	4.5		12	
	Total	4.3	24.4	9.8	38.5	100	
	Share Percent	11	63	26	100		

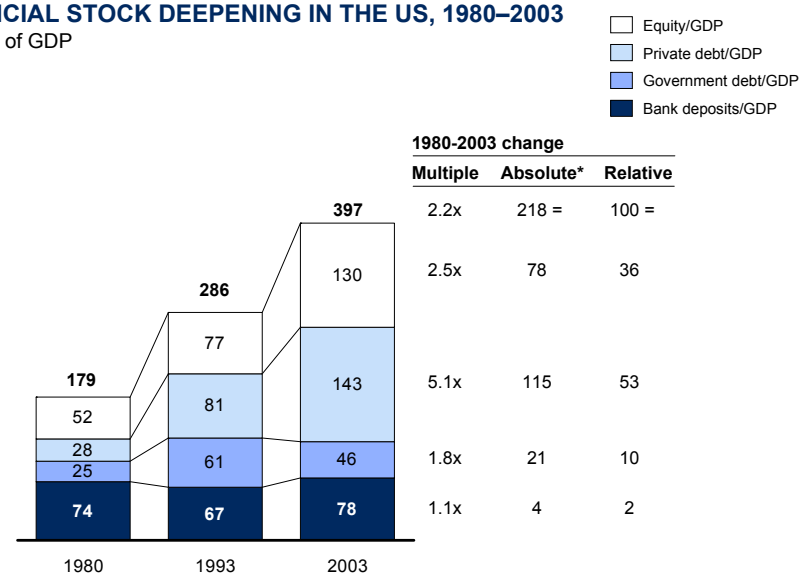
* Includes agency MBS and CMO

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Federal Reserve; Datastream; Compustat; Bond Market Association; *Inside MBS & ABS*

Exhibit 12

FINANCIAL STOCK DEEPENING IN THE US, 1980–2003

Percent of GDP



* In percentage points: e.g., the US depth for 2003 was 397 and for 1980 was 179, yielding a 218 point increase

Note: Some numbers do not add up due to rounding error

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Global Insight

Equity securities

Equities are the second largest asset class in the US (33 percent, compared to the global average of 28 percent) and have grown at 10.8 percent over the past 10 years, with significant fluctuations related to the equity market bubble[12] (Exhibit 3). The global share of US equity securities increased from 37 percent to 45 percent between 1993 and 2003 (by contrast, Japan's share shrank from 21 percent to 10 percent over the same period; Exhibit 9).

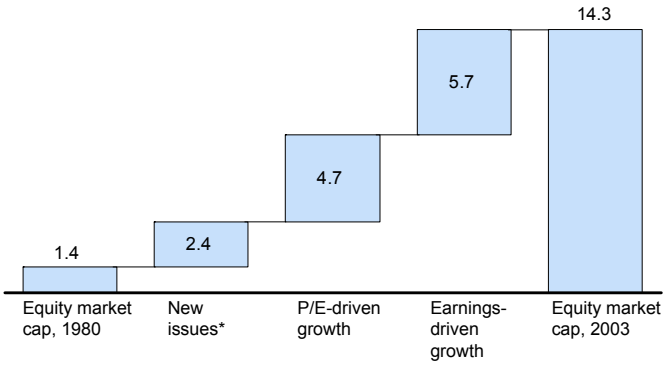
In addition, equity securities contributed 37 percent of the total increase in the US financial stock over the past 10 years and 33 percent since 1980 (Exhibits 10–11). A number of factors have contributed to the US equity stock increase over the longer run: the main factor is earnings growth, but P/E increases and IPOs have also been meaningful contributors (Exhibit 13). Relative to European countries, US equity securities have increased more through P/E changes and

[12] The total market cap of US equities at the end of 1999 was $16.6 trillion, it dropped to $11.1 trillion at the end of 2002, and then recovered to $14.3 trillion by the end of 2003. It is interesting to note that venture capital, which plays an important function of funding pre-IPO companies, is very small relative to the overall stock of equity securities. It peaked at $100 billion in the US.

Exhibit 13

US EQUITY MARKET CAPITALIZATION GROWTH, 1980–2003
$ Trillions

ESTIMATE



Share of increase Percent	**19**	**36**	**45**	

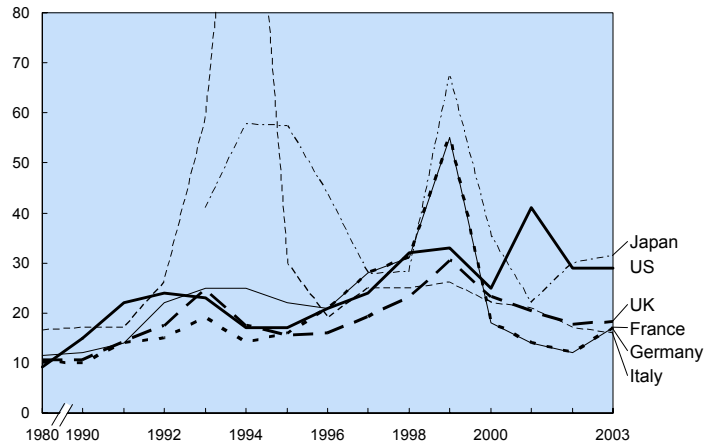
* Net of buybacks
Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Federal Reserve; Swiss Agency for Development &Cooperation (SDC); Datastream; Compustat

less through earnings growth. However, this analysis is highly sensitive to start and end point as P/Es are very volatile. In fact, reactions to a P/E rally in the 1990s illustrate the difference between the US and Europe: after 1999, the European P/Es largely reverted to 1980 levels, while US P/Es remained relatively high (Exhibit 14). There is a debate around the sustainability of current P/Es in the US: some believe they reflect an asset bubble or at least pose a puzzle, while others claim they are substantiated by real productivity improvements, globalization, and sectoral shifts in the US economy. In either case, P/E increases have contributed to the growth of equity stock.

Lastly, equity securities have been a meaningful contributor to financial deepening since 1980, contributing 36 percent of the total increase in depth, increasing from 52 percent of GDP in 1980 to 130 percent of GDP in 2003 (Exhibit 12).

Exhibit 14

P/E RATIOS FOR MAJOR WORLD MARKETS, 1980–2003



P/E ratio	1980	1999	2003
Japan	24	67	32
US	9	33	29
UK	11	31	18
France	10	55	17
Germany	12	55	17
Italy	17	26	16

Source: Standard & Poor's (S&P); Euronext; World Federation of Exchanges

Bank deposits

Bank deposits represent only 20 percent of the US financial stock, a much smaller share than the world's average of 30 percent. They grew more slowly than private debt and equity securities, at 6.8 percent between 1993 and 2003 (Exhibit 3). Over the same period, the global share of US bank deposits slightly decreased from 27 percent to 25 percent; for comparison, Japan's share dropped from 29 percent to 18 percent, while both China and Europe increased their shares (Exhibit 9).

Bank deposits contributed 17 percent of the total increase in the US financial stock over the past 10 years and since 1980, mainly through increase in household deposits (Exhibits 10–11). They have not contributed meaningfully to deepening, barely increasing from 74 percent of GDP to 78 percent since 1980 (Exhibit 12).

Government debt securities

Government debt securities form the least important asset class of the US financial stock.[13] Government debt represents only 12 percent of the US financial stock (in comparison, total government debt in the world has an 18 percent share of the global financial stock) and has grown at a mere 2.1 percent per year since 1993, despite recent expansion[14] (Exhibit 3). In another sign of its decreasing importance, the global share of US government securities declined from 39 percent to 25 percent over the same period (Exhibit 9).

Government debt securities have contributed modestly to the growth of the US financial stock since 1980 (11 percent of the increase), and even less since 1993 (only 4 percent; Exhibits 10–11). Similarly, they have not contributed meaningfully to deepening, as they have not grown much faster than GDP. Government debt depth increased from 25 percent of GDP in 1980 to 46 percent in 2003, contributing 10 percent of the overall increase in depth (Exhibit 12).

5. US ROLE IN THE GLOBAL CAPITAL MARKET

The global capital market comprises countries and regions that vary greatly in their financial stock's size, evolution, composition, growth, and role in the market (see also Chapter 1). For example, Europe is a large, growing, developed market that is being shaped by the processes of economic integration in the eurozone and by the dynamism of Eastern Europe. Within the greater European region, the UK is a deep, liquid hub that dominates the global foreign exchange, derivatives, and Eurobond markets. In another example, Asia is dominated by Japan's stagnant economy, but also encompasses China, a market surging ahead on a wave of economic growth.

[13] The US government debt is comprised of marketable federal ("Treasury") securities (72 percent of total) and state and local government ("municipal") securities (28 percent of total). It is interesting to note that 17 percent of total Treasuries are held by the Federal Reserve Banks, which reduces the amount of securities available to the public. Another 38 percent are held by foreign residents: 24 percent are held by foreign official institutions, and 14 percent are held by private foreigners. Not included in our numbers are $1.5 trillion (as of September 2003) of special, non-negotiable, non-marketable Treasuries issued as an investment tool for the assets of the Social Security and Medicare Trusts. Federal Reserve Flow of Funds Accounts, Social Security and Medicare Boards of Trustees Annual Report.

[14] The US government debt securities stock grew by 8 percent in 2002 and 11 percent in 2003.

The US plays a unique role in the global capital market. As we already established, the US is the largest national financial market, with 37 percent of the global financial stock, and even greater shares of the global equities (45 percent) and private debt security stocks (51 percent). Additionally, the size of the US economy, the role of its currency, and its role as a global financial hub and conduit of capital all contribute to its unique place in the global capital market.

The world's largest economy

The US as an economy is unique given its size—both in terms of its consumer market and the importance of its business base in the world. On the one hand, the US consumer market, because of its sheer size and its share of consumption of world output, attracts businesses from around the world who want to tap the US goods and services market. On the other hand, US businesses have become increasingly international and thus play an important role in the global economy. For example, US foreign direct investment (FDI) abroad totaled $803 billion from 1997 to 2002[15]; in fact, estimates suggest that one fourth of the US market cap is attributable to profits from foreign subsidiaries (Exhibit 15).

Given the attractiveness of the US consumer market and the international activities of its business base, the US has enormous import and export flows of goods and services; for example, in 2003, US imports and exports totaled $2.6 trillion, or 24 percent of GDP.[16] Trade on this scale necessitates huge settlement money flows and foreign exchange activity against the dollar.

A unique currency

Clearly, the US currency has a special role in the world. The US dollar is the preferred reserve currency of central banks around the world and the trade and exchange currency of choice: 65 percent of foreign exchange official reserves are held in US dollars (Exhibit 16). Further, 89 percent of all foreign exchange trades are against the US dollar (Exhibit 17).

[15] 2003 World Investment Report.

[16] Global Insight.

Exhibit 15

MARKET VALUE OF FOREIGN INCOME OF US MULTINATIONAL CORPORATIONS, 2002

$ Billions

Industry	Income from foreign affiliates	X	Applied P/E ratio	=	Market value of foreign income*
Manufacturing	31.3		23.4		732.4
Finance**	16.3		15.8		257.5
Petroleum**	10.2		15.4		157.1
Wholesale trade	13.2		17.6		232.3
Services and information**	3.2		21.2		67.8
Mining**	10.2		21.2		216.2
Other**,***	49.8		21.2		1055.8
Total US income from foreign affiliates	**$134.2 billion**				**$2.7 trillion = ~1/4 of total US market cap**

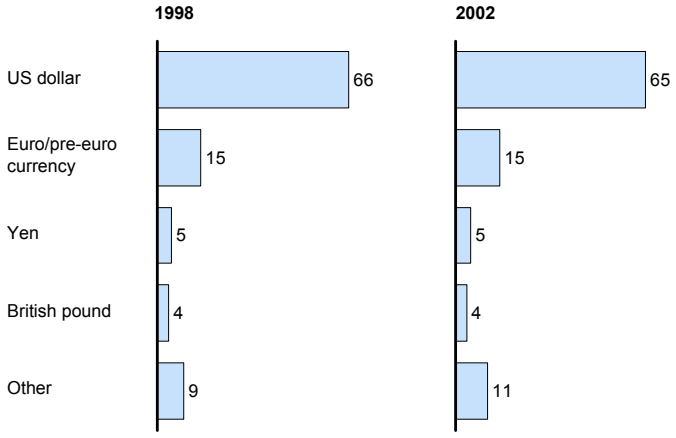
* As measured by income receipts from foreign affiliates, multiplied by relevant industry median or index P/E ratio
** P/E ratios calculated by averaging 2001-2004 industry medians, to remove cyclicality
*** Includes utilities, agriculture/forestry/fishing, construction, retail trade, real estate, transportation, management of nonbank companies and enterprises, accommodation, health care, and miscellaneous

Source: Bureau of Economic Analysis (BEA); S&P Analysts' Handbook Supplement; MGI analysis

Exhibit 16

SHARE OF NATIONAL CURRENCIES IN TOTAL OFFICIAL HOLDINGS OF FOREIGN EXCHANGE

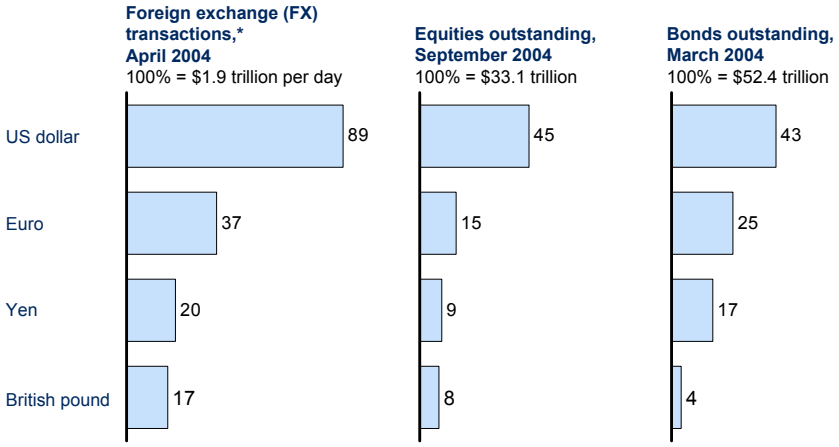
Percent



Source: International Monetary Fund

Exhibit 17

PREFERRED EXCHANGE CURRENCY FOR FINANCIAL PRODUCTS
Percent



* Because there are two currencies in a single FX transaction, the potential total is 200%; the share of other currencies comprise the remaining 37%
Source: McKinsey Global Institute Global Financial Stock Database; Federation of World Stock Exchanges; Bank for International Settlements (BIS)

Some view the US dollar as the center of what is being called a dollar zone, formed by countries that have linked their domestic currency tightly to the US dollar (China, for example) or through interventions (for example, Japan, Korea, India, and Singapore), thus turning the Federal Reserve into the world's central bank.[17]

Finally, the dollar is viewed as a safe value-storage and transaction currency in the developing world (for example, Latin America) where people prefer to keep their savings in the form of dollar-stuffed jars rather than to deposit local currency in a bank; in fact, about 60 percent of the US currency in circulation is held outside of the US.[18]

The sustainability of the US dollar as the dominant currency in the world has been questioned in light of the introduction of the euro (and the eurozone, which is comparable in size to the US) and in light of the recent depreciation of the US

[17] See Martin Wolf, "Why the Fed is forced to fuel the global boom," Financial Times, March 31, 2004.

[18] United States Treasury Department, "The use and counterfeiting of United States currency abroad, Part 2," Report to Congress, March 2003.

dollar (Exhibit 2 illustrates the fall of the dollar against the British pound, the euro, and the Japanese yen between 2001 and 2003). So far the dollar has largely maintained its position: foreign exchange transactions do not show a shift toward the euro over the US dollar, and local currency foreign exchange activity in most countries is typically transacted against the US dollar (with the exception of Eastern Europe); also, the majority of the global financial stock continues to be denominated in US dollars. However, there are signs that the euro is impacting the US's dominant position:

- First, there is a recent shift toward the euro in new bond issues. However, it is not yet clear whether this shift is caused by a temporary attractiveness of euro-denominated paper, or whether it is the beginning of a long-term trend driven by multinational corporations who want to hedge currency risk and by major global borrowers who want to widen their investor base in Europe (such as Freddy Mac, which is the largest single issuer of euro-denominated bonds outside of the eurozone).[19]

- Second, with the strong euro appreciation relative to the US dollar since 2001, the eurozone's relative share of the global financial stock has increased and its financial stock growth has accelerated in US dollar terms; again, these trends are a function of the euro to dollar exchange rate and could be reversed over the long run.

Global market hub

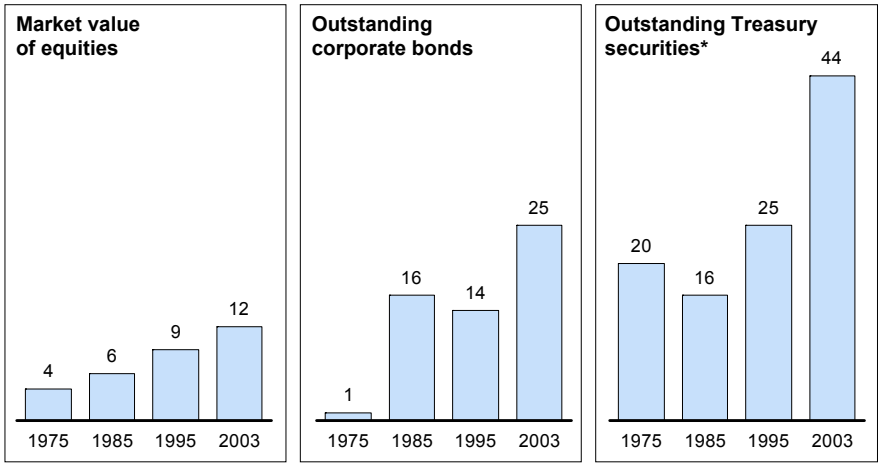
The US financial market acts as a hub in the global capital market. The US market is very well developed and has many advantages on its own: it is large, deep, efficient, liquid, and transparent. It is also a very open market that is integrated with the global capital market, as evidenced by the large volumes of cross-border holdings and activity. Foreigners increasingly invest in US equity, corporate debt, and Treasury securities (Exhibit 18). Further, the US attracts the lion's share of cross-border equity flows (Exhibit 19). Foreign issuers raise capital in the US through fast-growing American Depositary Receipts (ADRs) and international debt. Similarly, US investors invest abroad and US companies raise capital in foreign markets.

[19] See Occasional Paper No. 18 of the European Central Bank, "The international role of the euro: evidence from bonds issued by non-euro area residents," July 2004.

Exhibit 18

FOREIGN-OWNED US SECURITIES, 1975–2003

Percent



* Excluding Treasury securities held by the monetary authority
Source: Federal Reserve Flow of Funds

Exhibit 19

CROSS-BORDER EQUITY FLOWS, 1999

Percent of investments from a given market going to a foreign market

0-10 | 21-50 | 11-20 | 51-100

Investor from	Investing to: US	UK	Neth.	Japan	Germ.	France	Switz.	Spain	Italy	Scanda	ROE**	Total $ Billions
US	n/a	30	5	11	3	3	2	1	2	5	4	4,689
UK	21	n/a	13	7	13	13	6	4	1	6	3	5,667
Netherlands	28	23	n/a	3	9	11	3	1	4	3	9	285
Japan	69	8		n/a	1		2	1	1		-1	270
Germany	21	6	12	17	n/a	13	9	3	6	4	2	808
France	57	6	10	2	10	n/a	2	1		1	5	634
Switzerland	47	13	5	5	7	10	n/a	1	1	2	2	530
Spain	29	15	10	13	3	4	2	n/a	3	2	3	69
Italy	39	11	3	18	3	8	2	1	n/a	1	2	218
Scandinavia*	20	14	1	2	1	1	1		1	50	2	272
ROE**	38	3	27	13	1	6		1	1	1	3	462
Canada	82	4			1	6	1			1		209
Australia	63	8		4		8		1	1	1		35
Hong Kong	29	24	2	18		5	3	1	1	1	1	93
Singapore	46	11	1	15		4	5	1	1			85
Rest of world	89											2,504

* Sweden, Norway, Finland, and Denmark
** Rest of Europe: Austria, Belgium/Luxembourg, Greece, Ireland, Portugal, Turkey
Source: Cross-Border Capital (unpublished data)

3. Europe Findings

We see four subregions of Europe that each play a unique role in both the European and the global capital markets: the eurozone, the UK, Switzerland, and Eastern Europe. The eurozone is now the second most important region in the global financial stock following the monetary integration of 12 European countries and the introduction of the euro.[1] The UK acts as the European financial hub and a global foreign exchange hub. Switzerland is essentially a global private bank. And Eastern Europe is one of the hot growth spots in the global financial stock.

This chapter analyzes the development of the capital markets in Europe at the level of the continent as a whole, the four subregions, and five countries. It is organized in the following sections:

1. Key findings
2. Context
3. Overall size, growth, and financial depth of Europe's financial stock
4. Asset composition of Europe's financial stock
5. Subregional composition of Europe's financial stock.

[1] Eurozone members include Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain.

Interpretation of Our Results

We define financial stock as the sum of equity securities, private and government debt securities, and bank deposits. Thus, a financial stock represents the capital that is intermediated through the securities markets and the banking system in a given economy.

Two important distinctions underlie the findings in this report: intermediation by markets versus banks, and government debt securities versus other asset classes.

1. Market intermediation versus bank intermediation (also tradable versus non-tradable instruments)

The stock of equity and debt securities represents the degree of *market intermediation* in an economy, since they are the instruments used by the financial market to directly match up those who want to invest money with those who want to raise capital. Because equity and debt securities may be traded on the markets, we often refer to them collectively as *tradable instruments* (although depending on their liquidity and turnover, some securities may not be actually traded).

In contrast, the stock of bank deposits represents the degree of *bank intermediation* in an economy, since bank deposits are the capital that the banking system channels from savers to borrowers (simplistically speaking, bank deposits fund bank lending). Since capital intermediated through the banks is less easily transferable than stocks or bonds, we refer to bank deposits as *non-tradable*.

In general, governments have greater ability to regulate the banking sector than they do the financial markets. Thus, the degree of government control over the financial system bears an important relation to the extent of bank intermediation.

Note: Our bank deposit numbers include a small amount of currency in circulation that does not conform to the definition of bank intermediation; however, it has minimal impact on our findings.

2. Government debt securities versus other asset classes

Equity securities, private debt securities, and bank deposits (which fund bank loans) are the main classes of instruments for intermediating capital between borrowers on one hand and investors and savers on the other. As these three elements of the financial stock increase, the economy becomes more efficient at allocating capital to its best use.

Government debt securities are quite different. They function more as an instrument to redistribute taxes across generations than as a means to allocate capital from savers to borrowers. Although a well-developed market for government debt securities supports the development of a private debt securities market, government debt does not *directly* help firms to raise capital and grow.

The distinction between government debt and the other asset classes is not always clear cut. For example, in some developing countries the government may direct bank lending, support bank balance sheets, control corporate activity, or guarantee corporate debt. In such cases, a portion of bank deposits and corporate debt may be a disguised form of government debt.

Because of such differences across asset classes, cross-regional comparisons are meaningful only when the size of a financial stock is understood relative to its *composition*. For example, a large financial stock dominated by government debt securities is a sign of a high degree of future generation liabilities, rather than a sign of more efficient capital allocation.

1. KEY FINDINGS—EUROPE

- **Size and growth.** With 31 percent share, Europe is the second largest region in the global capital market behind the US. Europe's financial stock has reached $37 trillion in 2003, up from $3 trillion in 1980 and $14 trillion in 1993.[2] This increase over the past 10 years reflects a growth rate of 9.9 percent, which exceeds that of the US and the world (8.6 and 8.4 percent, respectively).[3]

- **Depth.** The depth of Europe's financial stock has increased considerably from 84 percent of GDP in 1980, to 182 percent in 1993, to 306 percent in 2003; however, the current figure falls short of the US depth of 397 percent. Depth varies across countries within Europe. The UK and the Netherlands have reached financial depth of 385 and 569 percent, respectively, reflecting their hub roles, while the financial depth of Eastern Europe is only 99 percent, reflecting the developing nature of its financial system.

- **Asset composition.** Bank deposits and private debt are the most important asset classes in Europe's financial stock, with respective shares of 30 and 28 percent of total. Unlike the US, Europe's financial stock comprises a higher share of bank deposits and government debt securities, and smaller shares of private equity and private debt securities (24 and 18 percent, respectively). Private securities have grown fastest since 1993 (11.5 percent for private debt and 11.0 percent for equity securities). In contrast, government debt securities have grown slowest, at 7.6 percent.

- **Growth components.** The contribution of individual growth components to overall financial stock increase varies at the country level. Governments made the greatest contributions to growth in debt securities outstanding in France and Italy (61 and 59 percent, respectively) while the private sector made the greatest contributions in the UK and Germany (82 and 65

[2] All dollars are current US dollars. All growth rates are nominal growth rates based on financial stock numbers expressed in current US dollars; thus, they reflect inflation and exchange rate shifts.

[3] Note that the recent appreciation of the euro against the US dollar has had a considerable impact on the appreciation of the European financial stock.

percent, respectively). Securitization (in the form of Pfandbriefe) was a meaningful contributor to growth only in Germany.[4]

Equities grew mostly through increase in earnings (from 76 percent of equity growth in the UK to 86 percent in Germany), while new issues made a modest contribution (ranging from 10 percent in Germany to 21 percent in Italy). Privatization of state-owned enterprises has been the primary source of new issues in the eurozone, and has also contributed to IPOs in the UK. Finally, increases in P/Es have made only a limited impact on financial stock growth between 1980 and 2003.

- **Subregional composition.** We see four interesting stories within Europe:
  - — The eurozone contributes 69 percent of the financial stock and is integrating through its single currency. The geographic composition of eurozone's financial stock reveals the dominance of its largest economies (Germany, France, and Italy), the emerging role of the Netherlands as a regional debt hub, and the fast growth of smaller economies (Spain, Ireland, Greece, and Portugal).
  - — The UK, with 19 percent of Europe's total financial stock, is Europe's financial hub and plays a unique role in the global capital market, especially for foreign exchange and Eurobonds. Like the US's, the UK's financial stock is dominated by equities and private debt securities. What is unique to the UK is the large share of international private debt securities, illustrating its hub role in Europe.
  - — Switzerland is Europe's (and the world's) private bank. The financial stock of the country is only half the size of assets under management.
  - — Eastern Europe is one of the growth hot spots in the global capital market, growing at almost two and a half times the global rate (19.3 versus 8.4 percent). It will likely be a source for additional growth for Europe in the future as its financial systems develop and its depth converges to Western European levels.

[4] Pfandbriefe (or covered bonds) are full recourse debt instruments, secured against a pool of assets, typically mortgages and public sector debt, issued under special legislation. Pfandbriefe have been a traditional funding instrument of German mortgage banks.

2. CONTEXT—EUROPE

To provide context for the development of the financial stock in Europe we highlight a few facts around its economy, recent developments in its financial market, and the degree of integration within the financial system.

Economic facts

In 2003, the combined nominal GDP of Europe overall stood at $12.1 trillion, representing 33 percent of global GDP.[5] This is slightly ahead of the US, the largest national economy in the world, where nominal GDP stands at $11 trillion (31 percent of the global total). Further, Europe's 747 million people represent about 12 percent of the world's population.[6]

From 1993 to 2003, European nominal GDP grew at an average rate of 4.4 percent per year in nominal dollar terms. Again, large differences exist between countries. While growth rates in some smaller countries were relatively high (Ireland, Finland, and parts of Eastern Europe), growth in continental Europe, especially in Germany and France, was rather sluggish.

Recent developments

The dissolution of barriers between Western and Eastern Europe has allowed economic integration across Europe, spurring growth in the East. The European Union (EU) promotes integration of markets for goods, capital, and labor across the 25 member states.[7] More over, the 12 eurozone countries of the EU adopted a single currency, the euro, which ensures further monetary and financial integration.

Our findings are also impacted by recent fluctuations in foreign exchange rates, especially when discussing relative size and growth of Europe relative to the US (see Box).

---

[5] All GDP growth figures in this report are in nominal terms.

[6] The EU contributes about half of Europe's population; about one third live in non EU countries in Central and Eastern Europe, and smaller countries make up the remainder.

[7] EU members before enlargement in 2004: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and the UK. New members of the EU: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.

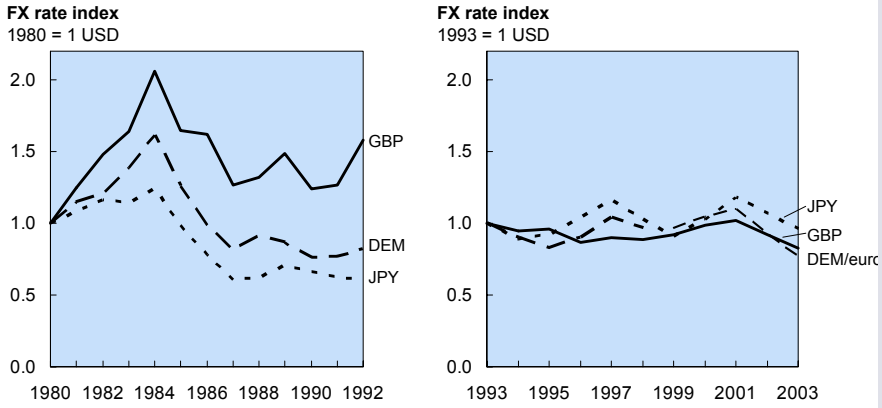
Foreign Exchange Rate Fluctuations

We express the financial stock of all countries in US dollars (to aggregate the national stocks on a global level), so foreign exchange rate dollar fluctuations against major currencies play a role in our findings on the relative size and growth of financial stock among regions in the global capital market.

Overall, exchange rate fluctuations since 1993 have been tamer than the 1980s. However, the US dollar has significantly depreciated against the euro, the British pound, and the Japanese yen since end-2001. Consequently, our findings potentially overstate the growth rates and relative sizes of the eurozone, the UK, and Japan, since these reflect not only the growth and size of the underlying financial stock in local currency, but also the impact of currency rate translation (Exhibit 1).

Exhibit 1

FOREIGN EXCHANGE RATES AGAINST THE US DOLLAR



Exchange rate USD equivalent	2001	2003
GBP*	1.45	1.79
EUR*	0.89	1.25
JPY	131.80	107.10

* Expressed conventionally; the chart has these values converted in terms of 1 USD = X foreign currency units
Source: International Monetary Fund (IMF) International Financial Statistics exchange rates – national currency per US dollar (end of period average)

To illustrate the impact of foreign exchange fluctuations, the 32 percent annual growth of eurozone bank deposits, expressed in US dollars 2001–2003, can be disaggregated into 10.3 percent annual growth in underlying bank deposit stock expressed in euros and 19.7 percent of annual growth in the foreign exchange rate of the euro against the dollar.

Integration

Finally, it is important to note that Europe is undergoing the process of market integration, so its capital market is still significantly less unified than that of the US. At the same time, European countries are much more integrated than those in Asia, whose capital markets remain largely isolated.

3. OVERALL SIZE, GROWTH, AND DEPTH OF EUROPE'S FINANCIAL STOCK

Europe is the second largest capital market in the world, accounting for 31 percent of the global stock. In 2003, Europe's financial stock totaled $37 trillion, up from $3 trillion in 1980 and $14 trillion in 1993. Despite a relatively low rate of economic growth in the last decade, Europe's financial stock has grown faster than the US or the global financial stock (respective growth rates have been 9.9, 8.6, and 8.4 percent;[8] Exhibits 2–3). As discussed in Box 2, some of the growth in Europe's financial stock is also due to the appreciation of all major currencies (later, the euro) against the US dollar since 1993.[9]

Europe's financial stock deepened considerably, from 84 percent of GDP in 1980, to 182 percent in 1993, to 306 percent in 2003 (Exhibit 3). This depth is less than that of the US, Japan, and the global average (397, 411, and 326 percent, respectively). Further, significant differences in depth exist within Europe (see Section 5).

4. ASSET COMPOSITION OF EUROPE'S FINANCIAL STOCK

Bank deposits and private debt are the most important asset classes of Europe's financial stock. Also, in contrast to the US, Europe's financial stock has a higher share of bank deposits and government debt securities, and smaller shares of private equity and private debt securities. Europe has been gaining global share across all asset classes (Exhibits 4–5).

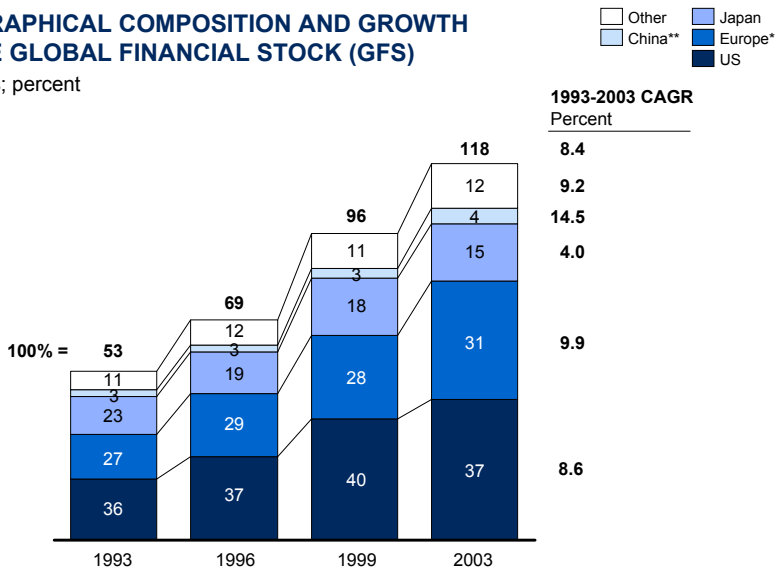
[8] As discussed, growth rates are very sensitive depending on start and end year and must also be put in the context of foreign exchange movements. For example, while in the period of 1993 to 2003, Europe's financial stock has grown faster; if we calculate the growth rates for 1993 to 2002 instead, the US would be growing faster.

[9] Between 1993 and 2003 the British, German, French, and Italian currencies (the latter three merged into euro in 1999) have gained 21, 11, 14, and 11 percent nominally relative to US dollars, respectively.

Exhibit 2

GEOGRAPHICAL COMPOSITION AND GROWTH OF THE GLOBAL FINANCIAL STOCK (GFS)

$ Trillions; percent



* Europe includes the UK, the eurozone (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain), Switzerland, Sweden, Denmark, Norway, and Eastern Europe

** China also includes Hong Kong and Macao

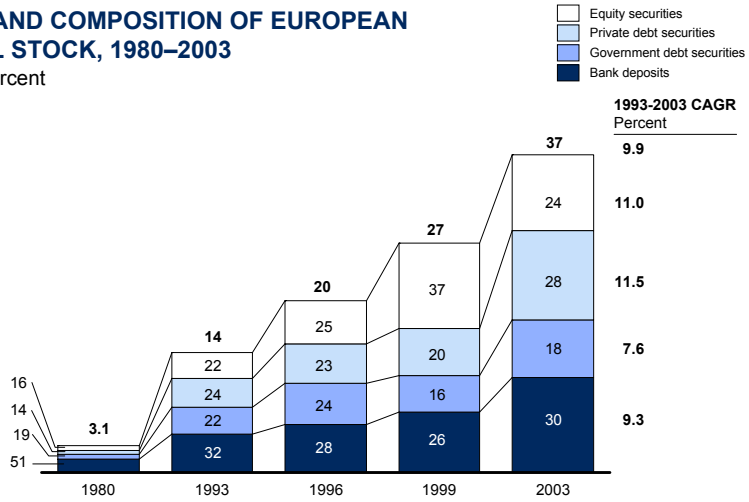
Note: 2003 shares do not add to 100% due to rounding error

Source: McKinsey Global Institute Global Financial Stock Database

Exhibit 3

GROWTH AND COMPOSITION OF EUROPEAN FINANCIAL STOCK, 1980–2003

$ Trillions;* percent



GDP (nominal) $ Trillions	3.7	7.9	10.1	9.6	12.1	4.4
Depth (FS/GDP) Percent	84	182	201	278	306	

* All dollars throughout this report are US dollars

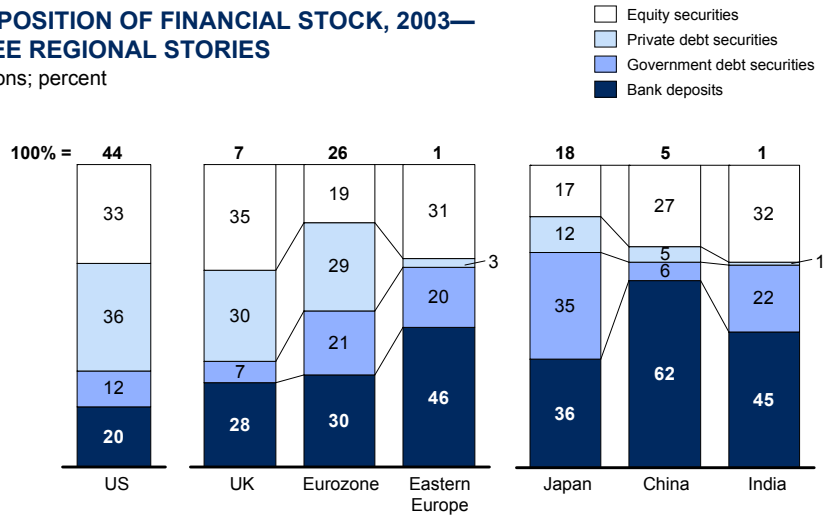
Note: Europe includes the UK, the eurozone (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain), Switzerland, Sweden, Denmark, Norway, and Eastern Europe

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Global Insight

Exhibit 4

COMPOSITION OF FINANCIAL STOCK, 2003—THREE REGIONAL STORIES

$ Trillions; percent



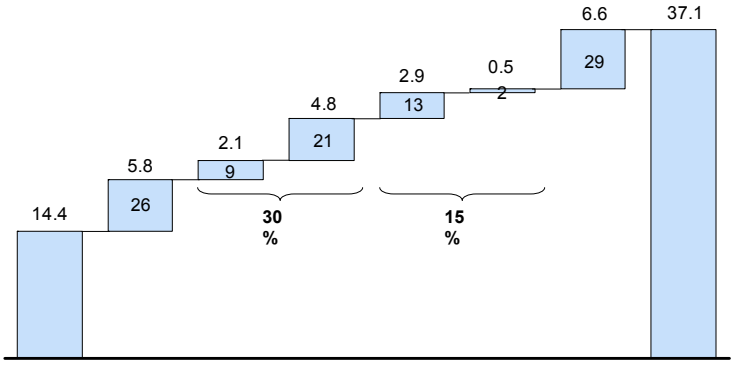
	US	UK	Eurozone	Eastern Europe	Japan	China	India
Depth (FS/GDP) Percent	397	385	314	99	411	323	137
CAGR Percent	8.6	11.3	9.8	19.3	4.0	14.5	11.9

Note: Some numbers do not add to 100% due to rounding error
Source: McKinsey Global Institute Global Financial Stock Database; Global Insight

Exhibit 5

CONTRIBUTION TO EUROPEAN FINANCIAL STOCK GROWTH BY COMPONENT, 1993–2003

$ Trillions; percent (in boxes)



	Equity securities	Domestic private debt securities	International private debt securities	Domestic government debt securities	International government debt securities	Bank deposits
1993-2003 CAGR Percent	**11.0**	**5.6**	**23.8**	**7.1**	**12.7**	**9.3**

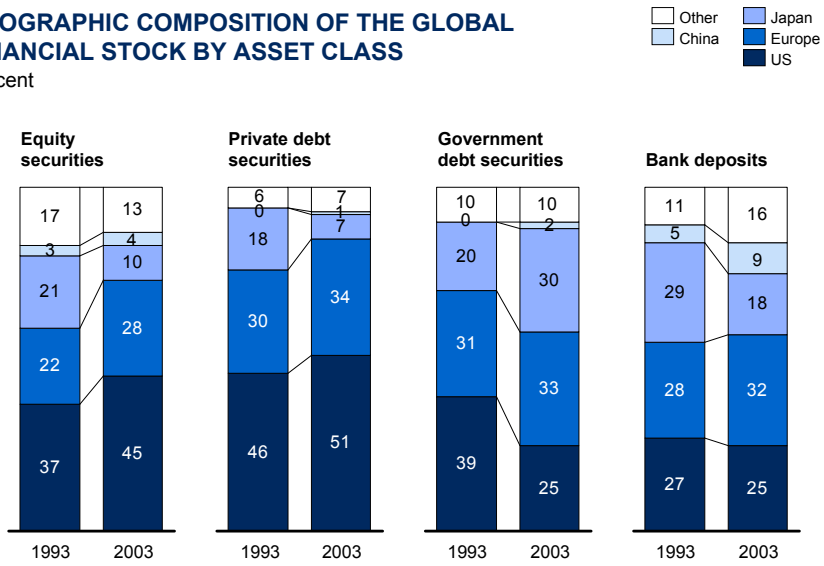
Source: McKinsey Global Institute Global Financial Stock Database

Bank deposits

Bank deposits are the largest asset class in Europe's financial stock, accounting for 30 percent of the total, in line with the world's average but greater than the US share of 20 percent. Bank deposits have grown at 9.3 percent since 1993 and have contributed 29 percent of the increase in Europe's financial stock between 1993 and 2003. Europe's global share of bank deposits increased from 28 percent to 32 percent between 1993 and 2003 (Exhibits 3–6).

Exhibit 6

GEOGRAPHIC COMPOSITION OF THE GLOBAL FINANCIAL STOCK BY ASSET CLASS
Percent



Source: McKinsey Global Institute Global Financial Stock Database

Private debt securities

Private debt securities are the second most important asset class in Europe's financial stock, with a 28 percent share. Again, this is in line with the global share of private debt but lower than the US share of 36 percent. Private debt securities have grown the fastest of all asset classes since 1993 (at 11.5 percent), contributing 30 percent of the total increase in Europe's financial stock. Europe's share of global private debt securities increased from 30 percent to 34 percent between 1993 and 2003 (Exhibits 3–6).

Exhibit 7

REGIONAL DIFFERENCES IN GROWTH COMPONENTS OF DEBT SECURITIES FINANCIAL STOCK, 1980–2003

Percent contribution to growth

	US	UK	France	Germany	Italy	Japan
Increased government debt	22	14	**61**	35	**59**	**75**
Increased private debt	42	**82**	39	29	39	24
Securitization	36	4	<1	36*	2	1
CAGR	**12**	**13**	**14**	**12**	**14**	**12**

* Almost all of it Pfandbriefe

Source: McKinsey Global Institute Global Financial Stock Database; Datastream; Compustat; Bureau of Labor Statistics (BLS); Deutsche Bundesbank-Capital Market Statistics

Private debt securities contributed the most to the increase of debt stock in the UK. Uniquely in Germany, securitization—in the form of Pfandbriefe—has been a significant driver of debt securities growth (Exhibit 7).

Equity securities

On average, equity remains less significant in Europe than in the US, with 24 percent of Europe's financial stock, compared to 33 percent of the US's. While the equities market bubble increased the share of equities to 37 percent of Europe's financial stock in 1999, by 2003 this share had reverted to about the level of a decade ago. Despite this volatility, Europe's global share of equities increased from 22 percent to 28 percent over the past 10 years (Exhibits 3–4, 6).

Growth in equity securities since 1980 has been fueled mainly by earnings-driven growth, as illustrated by our country-level analysis of the four largest countries in Europe (76 percent in the UK, 79 percent in Italy, 84 percent in France, and 86 percent in Germany). New issues have contributed between 10 and 21 percent of the increase in equity securities. P/E-driven growth appears

Exhibit 8

REGIONAL DIFFERENCES IN GROWTH COMPONENTS OF EQUITY SECURITIES STOCK, 1980–2003

Percent contribution to growth

	US	UK	France	Germany	Italy	Japan
New issues	19	15	12	10	21	5
P/E-driven growth*	36	9	4	4	0	5
Earnings-driven growth	45	**76**	**84**	**86**	**79**	**90**
CAGR	**10**	**11**	**15**	**13**	**15**	**10**

* P/E-driven growth is very sensitive to choice of starting and ending year of analysis; see Exhibit 10 for P/E ratios

Source: McKinsey Global Institute Global Financial Stock Database; Datastream; Compustat; BLS

to have been minimal, in stark contrast to the US (Exhibit 8). However, there are two important nuances on the nature of new issues and the magnitude of P/E impact to be considered.

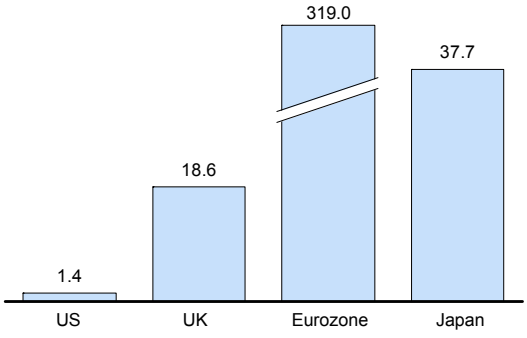
- First, while new issues appear to make similar contributions to the financial stock increases in Europe and the US (10 to 21 percent, versus 19 percent), most new issues in Europe came through privatization of state-owned enterprises rather than from floatation of private companies, as in the US. While privatization introduces the benefits of market discipline, a lack of stock issues of private companies in Europe signals economic stagnation and financial immaturity (Exhibits 8–9).

- Second, P/E-driven growth is highly sensitive to start and end point, as P/Es are very volatile. Thus, the relative importance of valuations (P/Es) versus earnings would have looked quite different at the height of equity valuations in 1999. However, reaction to a P/E rally in the 1990s illustrates the difference between the US and Europe: after 1999, European P/Es largely reverted to 1980 levels, while US P/Es remained relatively high (Exhibit 10).

Exhibit 9

PRIVATIZATION OF STATE-OWNED ENTERPRISES THROUGH PUBLIC SHARE OFFERINGS,* 1993–2001

$ Billions



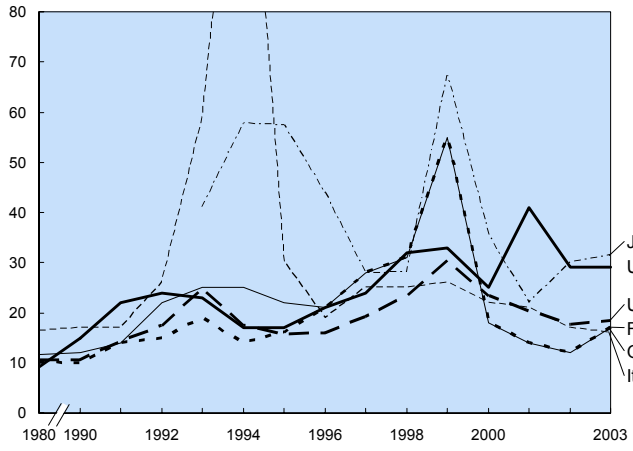
	US	UK	Eurozone	Japan
As share of GDP Percent	0.01	1.3	4.9	0.8
Share of all IPOs Percent	0.1	20	76	>90

* New issues from privatizations calculated as (total privatization proceeds to government)*(share of proceeds coming from new stock issues); data on total privatization proceeds covered 1993-2001, and data on share of proceeds covered 1990-1999

Source: Organization for Economic Cooperation & Development (OECD); IMF

Exhibit 10

P/E RATIOS FOR MAJOR WORLD MARKETS, 1980–2003



P/E ratio	1980	1999	2003
Japan	24	67	32
US	9	33	29
UK	11	31	18
France	10	55	17
Germany	12	55	17
Italy	17	26	16

Source: Standard & Poor's (S&P); Euronext; World Federation of Exchanges

Government debt securities

Government debt securities are the least important asset class in Europe and have also grown the slowest (7.6 percent since 2003) and contributed the least to the increase in Europe's financial stock since 1993 (15 percent). The 18 percent share of government debt in Europe's financial stock is larger than that of the US (12 percent), but much smaller than that of Japan (35 percent). Still, Europe has slightly increased its global share in government debt, from 31 percent of total in 1993 to 33 percent in 2003 (Exhibits 3–6).

The importance of government debt securities as a contributor to financial stock growth has varied across countries. Government debt has fueled financial stock growth most in France and Italy (Exhibit 7).

5. SUBREGIONAL COMPOSITION OF EUROPE'S FINANCIAL STOCK

Europe is characterized by regions that vary in degree of economic and financial integration. The differences reflect historical circumstances as well as more recent forces of change. As Exhibit 11 illustrates, there are four interesting European stories from the point of view of the global capital market, which we discuss individually in this section:

- The UK—Europe's financial hub with a unique role in the global capital market, especially for foreign exchange, and Eurobonds
- Switzerland—Europe's (and the world's) private bank
- The eurozone—the area integrating through its single currency and making up 69 percent of the European financial stock
- Eastern Europe—one of the growth hot spots in the global capital market.

The UK

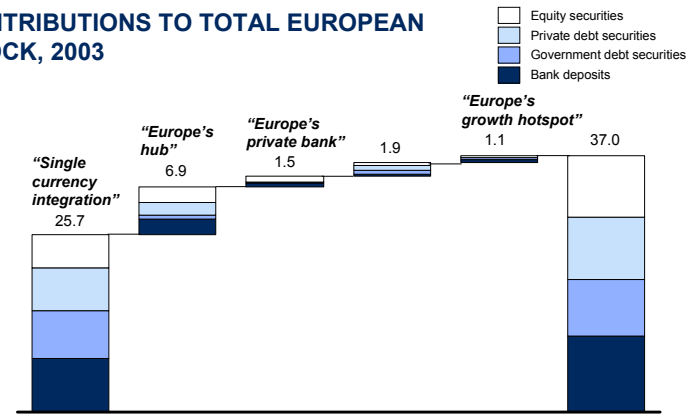
The UK is the most important European financial hub and a center of finance on par with New York and Tokyo.

Size and growth. The UK's capital market is large ($6.9 trillion in financial stock), growing at an above world-average rate (11.3 percent versus 8.4 percent since 1993), and well developed. The UK accounts for 19 percent of the

Exhibit 11

REGIONAL CONTRIBUTIONS TO TOTAL EUROPEAN FINANCIAL STOCK, 2003

$ Trillions



Issued in	Eurozone	UK	Switzerland*	Sweden, Denmark, Norway	Eastern Europe	Total financial stock
Share of Europe FS Percent	69	19	4	5	3	100
FS 1993-2003 CAGR Percent	9.8	11.3	7.3	6.4	19.3	9.9
Depth (FS/GDP) Percent	314	385**	473	258	99	306

* Swiss private banking assets under management are mostly not captured in the financial stock (except for part of bank deposits); in 2002 total private banking assets under management were $1.2 trillion of which $ 0.37 trillion were discretionary assets under management
** Depth of UK FS is 312 when excluding international private debt
Source: McKinsey Global Institute Global Financial Stock Database

financial stock of Europe. Further, the UK maintains a position as a global foreign exchange hub and has strengthened its role as a bond hub, particularly for Eurobonds (Exhibits 11–13).

Depth. The depth of the financial stock in the UK has greatly increased from 103 percent of GDP in 1980 to 385 percent in 2003, which is comparable to the depth of the US. Private debt (especially international private debt) and equity securities have contributed three quarters of the total increase in financial depth. In contrast, government debt has not increased its size relative to UK's GDP and has not contributed to deepening (Exhibit 14).

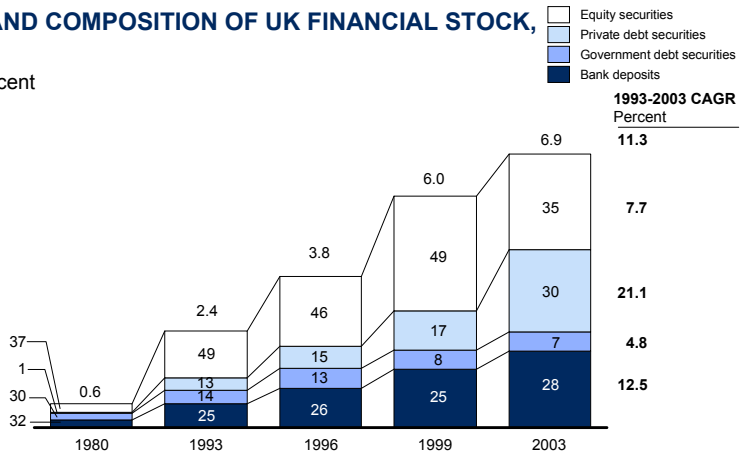
Asset composition. The UK's financial stock is dominated by private securities —equity and debt—much as the US's financial stock. What is unique to the UK is the large share of international private debt securities, illustrating the UK's hub role in Europe.

- **Equity.** Equity securities constitute the largest asset class in the UK, accounting for 35 percent of total financial stock. The share of equities in the UK is comparable to the US (33 percent) and is significantly larger than in

Exhibit 12

GROWTH AND COMPOSITION OF UK FINANCIAL STOCK, 1980–2003

$ Trillions; percent



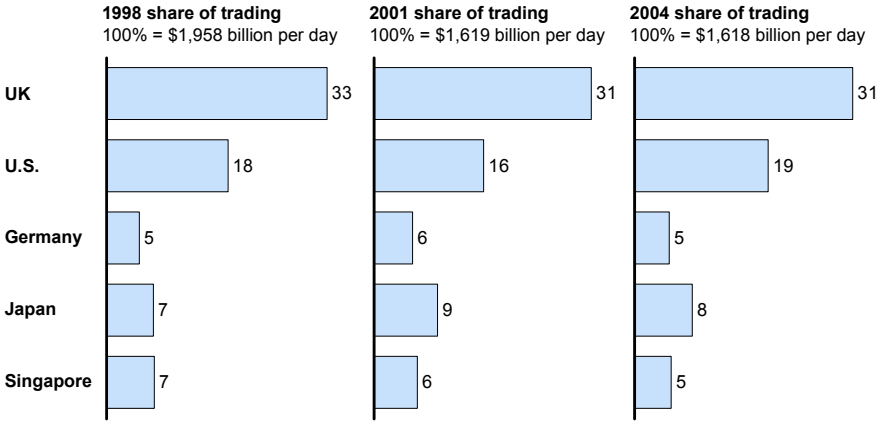
GDP (nominal) $ Trillions	0.5	1.0	1.2	1.5	1.8	**6.4**
Depth (FS/GDP) Percent	103	245	318	407	385	
Depth excluding international private debt Percent	n/a	227	292	368	312	

Note: Some shares do not add to 100% due to rounding error; in the period 1980-1993, the GBP depreciated by 38% against the dollar in nominal terms, while in the period 1993-2003, it appreciated by 20%; the 1993-2003 CAGR FS denominated in dollars is therefore higher than if it were denominated in the GBP

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Global Insight

Exhibit 13

GLOBAL FOREIGN EXCHANGE ACTIVITY

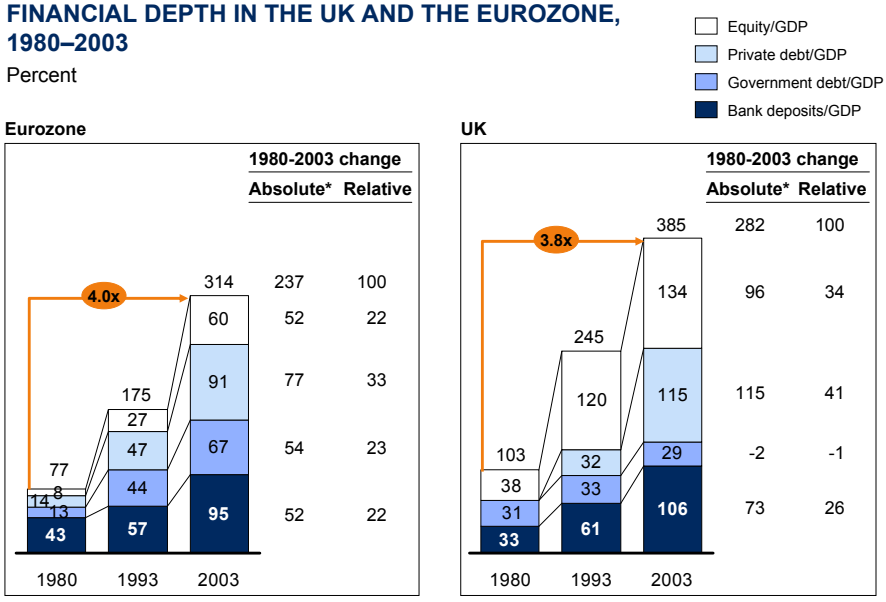


Source: Bank for International Settlements (BIS,) Triennial Central Bank Survey 2004

Exhibit 14

FINANCIAL DEPTH IN THE UK AND THE EUROZONE, 1980–2003

Percent



* In percentage points; e.g., the eurozone depth for 2003 was 314 and for 1980 was 77, yielding a 237 points increase

Note: Some numbers do not add up due to rounding error

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Global Insight

the eurozone (19 percent).[10] The share of equities in the UK's financial stock has decreased significantly since 1993 (from 49 percent to 35 percent), mainly as a result of the explosive growth in private debt securities, which have increased their share from 13 percent to 30 percent over the same period (Exhibits 4, 12). Equities have contributed 35 percent of the total financial stock increase since 1980 and 28 percent since 1993. Over the longer period, equity growth has been driven primarily by earnings, with 76 percent of the increase (Exhibits 15–17).

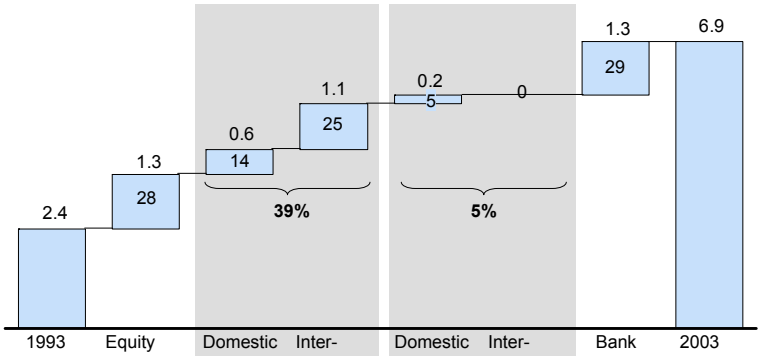
- **Private debt.** Private debt securities, the second most important asset class in UK's financial stock, have significantly changed the country's financial stock landscape. They have grown at a rate of 21.1 percent per year (as opposed to 4.8 percent for government debt), thus steadily gaining share of UK's financial stock. While private debt stock was comparable to government

[10] Note that the London Stock Exchange does not have a significantly larger market capitalization than the second largest European stock exchange—Euronext. Still, London and the UK are the preferred locations for investment banks and other financial institutions to establish their capital markets operations.

Exhibit 15

CONTRIBUTION TO UK FINANCIAL STOCK GROWTH BY COMPONENT, 1993–2003

$ Trillions; percent (in boxes)



1993-2003 CAGR Percent	**7.7**	**19.0**	**22.6**	**5.2**	**-17.0**	**12.5**

Note: Numbers do not add up due to rounding error; in the period 1993-2003, GBP appreciated by 20% against the dollar in nominal terms; the 1993-2003 CAGR for FS denominated in dollars is therefore higher than if it were denominated in GBP
Source: McKinsey Global Institute Global Financial Stock Database

debt stock in the early 1990s, now it far exceeds government debt. Private debt securities have contributed 39 percent of the increase in the UK's financial stock since 1993 and 32 percent since 1980, mainly through non-securitized issues (Exhibits 12, 15–16).

Further, 63 percent of private debt securities in 2003 were international, illustrating UK's role as a preferred bond hub. Except for the Netherlands, the eurozone's debt hub, no other developed economy we analyzed has as large a stock of international debt compared to domestic as the UK. International issues alone contributed 25 percent of the total increase in UK's financial stock since 1993, representing growth fueled by non-UK businesses issuing debt in the UK (Exhibit 15).

- **Bank deposits.** Bank deposits represent 28 percent of the UK's financial stock, a share in line with the eurozone (30 percent), but greater than the US (20 percent; Exhibits 4, 12). They contributed 29 percent of financial stock growth since 1993 and 27 percent since 1980, mainly from increase in household bank deposits (Exhibits 15–16).

Exhibit 16

CONTRIBUTION TO UK FINANCIAL STOCK GROWTH BY COMPONENT, 1980–2003

APPROXIMATIONS

$ Trillions

Asset class	Component	Government	Business	Households	Total	Share Percent	
Equity securities	• New issues	–	0.3	–	2.2	5	35
	• P/E growth	–	–	0.2		3	
	• Earnings growth	–	1.7	–		27	
Private debt securities	• Increased private debt		2.0**	–	2.1	31	32
	• Securitization		0.1	–		1	
Government debt securities	• Increased government debt	0.3	–	–	0.3	6	
Bank deposits	• Increase in currency	–	–	0.1	1.8	1	27
	• Increase in business bank deposits	–	0.7	–		11	
	• Increase in HH bank deposits	–	–	1.0		15	
	Total	**0.3**	**4.8**	**1.3**	**6.4**	100	
	Share Percent	5	75	20	100		

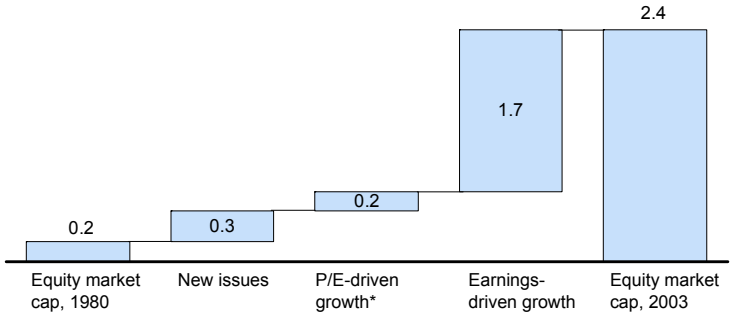
* Split of bank deposits growth estimated on the basis of 1990-2003 data
** 63% of private debt securities outstanding in 2003 were international debt securities
Note: In the period 1980-1993, the GBP depreciated by 38% against the dollar in nominal terms, while in the period 1993-2003, it appreciated by 20%
Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Federal Reserve; Thomson Financial Securities Data; Datastream; Compustat

Exhibit 17

UK EQUITY MARKET CAPITALIZATION GROWTH, 1980–2003

ESTIMATE

$ Trillions



Share of increase Percent	**15**	**9**	**76**	

* P/E ratio was 11 in 1980, 31 in 1999, 18 in 2003
Note: In the period 1980-1993, the GBP depreciated by 38% against the dollar in nominal terms, while in the period 1993-2003, it appreciated by 20%
Source: McKinsey Global Institute Global Financial Stock Database; S&P; Thomson Financial Securities Data; Datastream; Compustat

- **Government debt.** Government debt securities are the least important asset class in the UK's financial stock. Not only do they have the smallest share at 7 percent, but this share has shrunk from 14 percent in 1993. Government debt has grown the slowest of all asset classes (at 4.8 percent per year). Finally, similar to the US and in contrast to other European countries, the government contribution to the financial stock has been small (6 percent since 1980, as compared to 18 percent in Germany, 19 percent in France, and 33 percent in Italy; Exhibits 12, 16).

Switzerland

Similar to the UK, Switzerland retains a special role in the global capital market. Switzerland is Europe's (and the world's) private bank.

The depth of the Swiss financial stock at 473 percent of GDP surpasses the US and the UK (397 and 385 percent, respectively), while in total the financial stock remains relatively small (about $1.5 trillion), accounting for 4 percent of total financial stock in Europe (Exhibit 11). However, measuring the size of a financial sector using financial stock *issued* in the country considerably understates the importance of the Swiss financial industry. If we took an alternative lens and looked at the amount of capital *managed* in the country, the value of Switzerland's financial stock could almost double as it would reflect the approximately $1.2 trillion private banking assets under Swiss management (of which a large share is not invested in financial stock issued in Switzerland).[11]

The eurozone

The creation of a common currency, the euro, is transforming continental Europe, leading to greater financial integration among member countries.

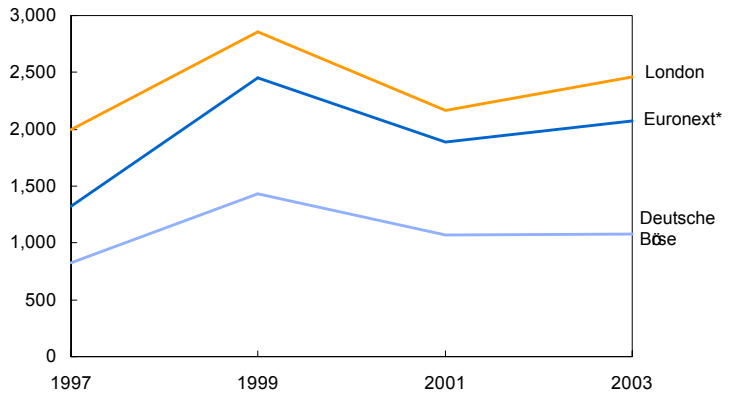
Size and growth. the eurozone's financial stock ($25.7 trillion) represents 69 percent of total financial stock in Europe but has grown slower than that of the UK (9.8 percent versus 11.3 percent; Exhibits 4, 11).

[11] However, this would violate our approach, which is designed to avoid the double-counting of financial stock.

Exhibit 18

MARKET CAPITALIZATION OF THREE EUROPEAN STOCK EXCHANGES

$ Billions



* Euronext represents a merged entity between Amsterdam, Brussels, and Paris stock exchanges in 2000 with the addition of Lisbon in 2002; 1997 and 1999 figures represent sum of Amsterdam, Brussels, and Paris stock market capitalizations

Source: Federation Internationale des Bourses de Valeurs (FIBV)

While an integrating and consolidating capital market infrastructure has made a significant contribution, the numbers have also been impacted by the appreciation of European currencies (and later the euro) against the US dollar.[12] An example of the financial infrastructure's integration process is the creation of Euronext through a merger in 2000 of the Amsterdam, Brussels, and Paris stock exchanges, and the subsequent addition of the Lisbon stock exchange and acquisition of the LIFFE. The Euronext stock market capitalization may soon rival that of the London Stock Exchange (Exhibit 18).

Member countries. The geographic composition of the eurozone's financial stock reveals the dominance of its largest economies, the emerging role of the Netherlands as a regional debt hub, and the fast growth of smaller economies (Exhibit 19).

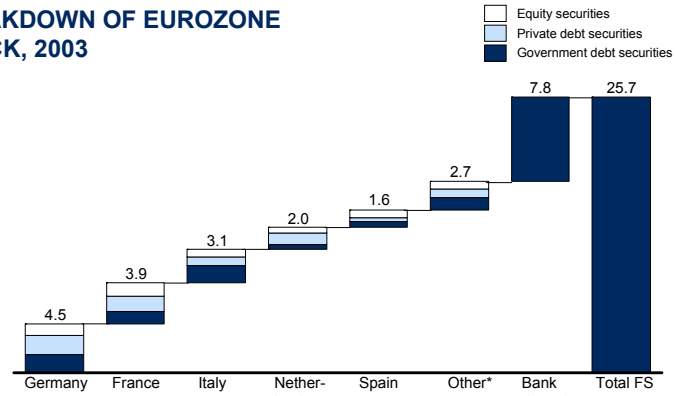
- First, the three largest financial sectors in the eurozone—Germany, France, and Italy—account for two thirds of Europe's financial stock.

[12] Between 1993 and 2003, the German, French, and Italian currencies, which have later merged into euro, have gained between 11 and 14 percent nominally, relative to US dollars.

Exhibit 19

REGIONAL BREAKDOWN OF EUROZONE FINANCIAL STOCK, 2003

$ Trillions



Issued in	Germany	France	Italy	Nether-lands	Spain	Other*	Bank deposits	Total FS
Share of eurozone tradable FS Percent	25	22	17	11	9	15		
Tradable FS 1993-2003 CAGR Percent	9.1	9.2	8.5	14.1	14.9	10.9***	9.0	
Depth (FS/GDP)** Percent	269	324	301	569	279	320		

~1/3 from international debt

* Austria, Belgium, Finland, Greece, Ireland, Luxembourg, and Portugal
** Including bank deposits
*** Economies with converging levels of income to European average (Ireland, Greece, and Portugal) have had high growth rates of financial stock: 21.3, 14.7, and 15.3, respectively
Note: In the period 1993-2003, DEM, FRF, and ITL (and later EUR) appreciated by ~11-14% against the dollar in nominal terms; the 1993-2003 CAGR for FS denominated in dollars is therefore higher than if it were denominated in local currencies
Source: McKinsey Global Institute Global Financial Stock Database

- Second, the Netherlands emerges as a preferred location for debt issuance. International debt securities account for 74 percent of private debt securities in the Netherlands. Also, its financial stock grew at 14.1 percent since 1993, which is much faster than the growth of 9.1, 9.2, and 8.5 percent for Germany, France, and Italy, respectively, making it now the fourth largest within the eurozone.[13] The Netherlands' role as a hub explains why its financial stock exceeds that of Spain, despite the fact that Spain's GDP is larger.

- Finally, we find high growth rates of financial stock in Spain, Ireland, Greece, and Portugal (growth rates of 14.9, 21.3, 14.7, and 15.3 percent, respectively). Due to their small size, these economies contribute only modestly to the total eurozone financial stock.

Depth. The eurozone has experienced rapid deepening of its financial stock, from a low starting point in 1980 (only 77 percent of GDP) to 314 percent of GDP in 2003. Private debt has contributed the most to financial deepening

[13] All financial stock growth numbers herein for eurozone members are based on the growth of equity and debt securities, since bank deposit data is not broken out by country within the eurozone.

(increasing from 14 percent of GDP in 1980 to 91 percent in 2003; Exhibit 14). What is interesting in the eurozone is that all asset classes have made a meaningful contribution to deepening; other regions have some dominating asset class driving most of the deepening and/or some unimportant asset class with minimal impact on deepening (for example, bank deposits in the US and government debt in the UK).

Within the eurozone, the Netherlands has reached financial depth of 569 percent of GDP, fueled by its hub role. In contrast, the other eurozone countries have a much lower degree of financial deepening—for example, 269 percent of GDP for Germany and 324 percent of GDP for France (Exhibit 19).

Asset composition. With the exception of equity securities, which play a smaller role in the eurozone than in the world as a whole, the asset composition of the eurozone is generally in line with the global average. The two largest asset classes in the eurozone's financial stock are bank deposits and private debt securities, with 30 and 29 percent share, respectively. Government debt securities comprise 21 percent of the financial stock. Equity securities account for only 19 percent of the financial stock, which is lower than the 28 percent that equities hold in the global financial stock (Exhibit 20).

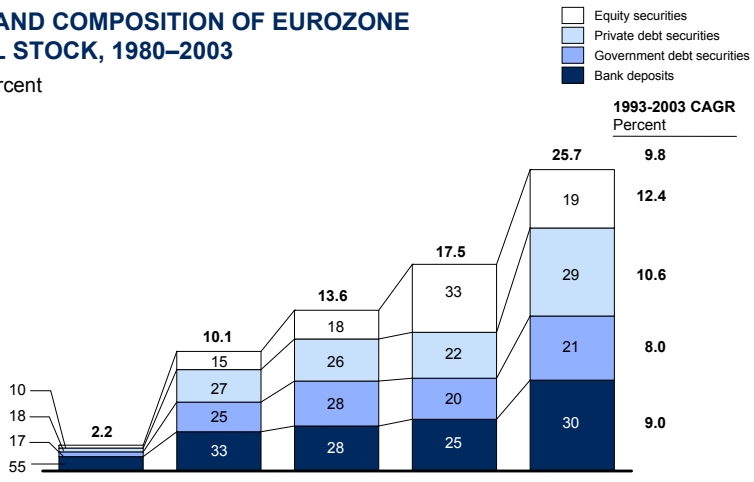
The eurozone's evolution is in line with global trends in at least two other respects. First, forms of private and marketable financial stock have been growing faster than non marketable and public financial stock. Equity securities and private debt securities have grown at 12.4 and 10.6 percent, respectively, while government debt securities and bank deposits have grown at 8.0 and 9.0 percent, respectively (Exhibit 20). Second, international issues of both private and government debt securities have been growing significantly faster than domestic issues, and international debt has been gaining share relative to domestic debt. Growth of international private debt securities was 25.3 percent, while domestic private debt securities grew by only 4.4 percent per year (the respective growth rates for domestic and international government debt securities were 16.8 and 7.3 percent). This may be interpreted as an indication of growing financial integration in the eurozone (Exhibit 21).

To understand the sources of financial stock increase over the years, we analyzed the financial stock growth at a country level for the three largest eurozone economies: Germany, France, and Italy.

Exhibit 20

GROWTH AND COMPOSITION OF EUROZONE FINANCIAL STOCK, 1980–2003

$ Trillions; percent



GDP (nominal) $ Trillions	2.8	5.8	7.1	6.7	8.2	3.5
Depth (FS/GDP) Percent	77	175	190	262	314	

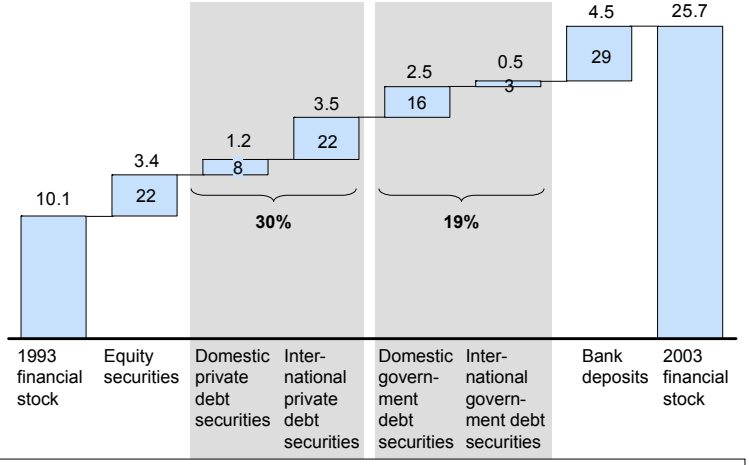
Note: Some shares do not add to 100% due to rounding error; in the period 1980-1993, DEM appreciated by 13% against the dollar in nominal terms, while FRF and ITL depreciated by 23% and 45%, respectively; in the period 1993-2003, DEM, FRF, and ITL (and later EUR) appreciated by ~11-14%; the 1993-2003 CAGR for FS denominated in dollars is therefore higher than if it were denominated in the local currency

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Global Insight

Exhibit 21

GROWTH OF EUROZONE FINANCIAL STOCK, 1993–2003

$ Trillions; percent (in boxes)



1993-2003 CAGR Percent	12.4	4.4	25.3	7.3	16.8	9.0

Note: In the period 1993-2003, DEM, FRF, and ITL (and later EUR) appreciated by ~11-14% against the dollar in nominal terms; the 1993-2003 CAGR for FS denominated in dollars is therefore higher than if it were denominated in local currencies

Source: McKinsey Global Institute Global Financial Stock Database

Exhibit 22

CONTRIBUTION TO GERMAN FINANCIAL STOCK GROWTH BY COMPONENT, 1980–2003

APPROXIMATIONS

$ Trillions

Asset class	Component	Government	Business	Households	Total	Share Percent	
Equity securities	• New issues	–	0.1	–	1.0	2	17
	• P/E growth	–	–	<0.1		1	
	• Earnings growth	–	0.9	–		14	
Private debt securities	• Increased private debt	–	0.9	–	2.0	15	34
	• Securitization	–	–	–		0	
	• New issues of Pfandbriefe*	–	1.1	–		19	
Government debt securities	• Increased government debt	1.1	–	–	1.1	18	
Bank deposits	• Increase in currency	–	–	0.1	1.9	2	31
	• Increase in business bank deposits	–	0.4	–		6	
	• Increase in HH bank deposits	–	–	1.4		23	
	Total	1.1	3.4	1.5	6.0	100	
	Share Percent	18	57	25	100		

* Collateralized bonds

Note: In the period 1980-2003, DEM (and later EUR) appreciated by 27% against the dollar in nominal terms

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Federal Reserve; Thomson Financial Securities Data; Datastream; Compustat; Deutsche Bundesbank-Capital Market Statistics

- **Germany.** Private debt securities contributed the most to the total increase in German financial stock since 1980 ($2.0 trillion, or 34 percent of total), fueled both by securitization in the form of Pfandbriefe and by increase in non-securitized debt. Bank deposits were the second most important contributor to financial stock growth (31 percent of total), and have grown predominantly through an increase in household deposits. Government debt and equity securities contributed the rest (18 and 17 percent of total increase in financial stock, respectively). The growth in equities came predominantly (86 percent) from earnings-driven growth (Exhibits 22–23).

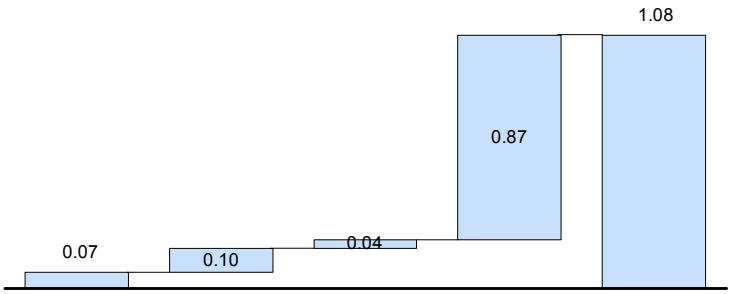
- **France.** All asset classes have made a significant contribution to the growth of the French financial stock. As in Germany, growth in private debt securities made the largest contribution, accounting for $1.5 trillion, or 29 percent of total increase in financial stock since 1980, although unlike Germany, securitization has not contributed to growth. Bank deposits

Exhibit 23

EQUITY MARKET CAPITALIZATION GROWTH IN GERMANY, 1980–2003

ESTIMATE

$ Trillions



Share of increase Percent	**10**	**4**	**86**	

* P/E ratio was 12 in 1980, 55 in 1999, 17 in 2003

Note: In the period 1980-2003, DEM (and later EUR) appreciated by 27% against the dollar in nominal terms

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Thomson Financial Securities Data; Datastream; Compustat

contributed 27 percent of total, growing primarily through an increase in household deposits. Equity securities contributed 25 percent of total, also primarily by increase in earnings (84 percent). Finally, government debt contributed the remaining 19 percent of the total financial stock increase (Exhibits 24–25).

- **Italy.** Since 1980, increased government debt has contributed most to the growth in Italy's financial stock, accounting for $1.4 trillion, or 34 percent of the total increase. Increase in bank deposits contributed 30 percent to total increase, again mostly through an increase in household deposits. Issues of corporate debt contributed 22 percent to total increase in financial stock, while securitization has been an insignificant phenomenon, accounting for less than 1 percent of total. Finally, equity securities contributed only 14 percent of the total financial stock increase, growing mainly through earnings growth (Exhibits 26–27).

Exhibit 24

CONTRIBUTION TO FRENCH FINANCIAL STOCK GROWTH BY COMPONENT, 1980–2003

APPROXIMATIONS

$ Trillions

Asset class	Component	Government	Business	Households	Total	Share Percent	
Equity securities	• New issues	–	0.2	–	1.3	3	25
	• P/E growth	–	–	<0.1		1	
	• Earnings growth	–	1.1	–		21	
Private debt securities	• Increased private debt	–	1.5	–	1.5	29	29
	• Securitization	–	–	–		0	
Government debt securities	• Increased government debt	1.0	–	–	1.0	19	
Bank deposits	• Increase in currency	–	–	0.1	1.4	1	27
	• Increase in business bank deposits	–	0.2	–		5	
	• Increase in HH bank deposits	–	–	1.1		21	
	Total	**1.0**	**3.0**	**1.2**	**5.2**	100	
	Share Percent	19	58	23	100		

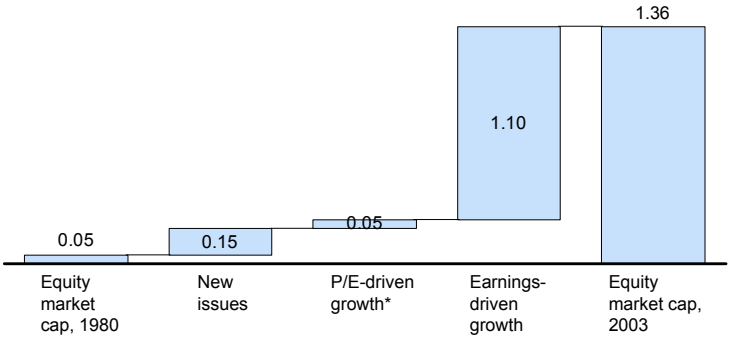
Note: In the period 1980-2003, FRF (and later EUR) depreciated by 13% against the dollar in nominal terms
Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Federal Reserve; Thomson Financial Securities Data; Datastream; Compustat

Exhibit 25

EQUITY MARKET CAPITALIZATION GROWTH IN FRANCE, 1980–2003

ESTIMATE

$ Trillions



Share of increase Percent	**12**	**4**	**84**

* P/E ratio was 10 in 1980, 55 in 1999, 17 in 2003
Note: In the period 1980-2003, FRF (and later EUR) depreciated by 13% against the dollar in nominal terms
Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Thomson Financial Securities Data; Datastream; Compustat

Exhibit 26

CONTRIBUTION TO ITALIAN FINANCIAL STOCK GROWTH BY COMPONENT, 1980–2003

APPROXIMATIONS

$ Trillions

Asset class	Component	Government	Business	Households	Total	Share Percent	
Equity securities	• New issues	–	0.1	–		3	
	• P/E growth	–	–	–	0.6	0	14
	• Earnings growth	–	0.5	–		11	
Private debt securities	• Increased private debt	–	0.9	–	0.9	22	23
	• Securitization	–	<0.1	–		1	
Government debt securities	• Increased government debt	1.4	–	–	1.4	34	
Bank deposits	• Increase in currency	–	–	0.1		2	
	• Increase in business bank deposits	–	0.2	–	1.3	4	30
	• Increase in HH bank deposits	–	–	1.0		24	
	Total	1.4	1.7	1.1	4.2	100	
	Share Percent	33	40	26	100		

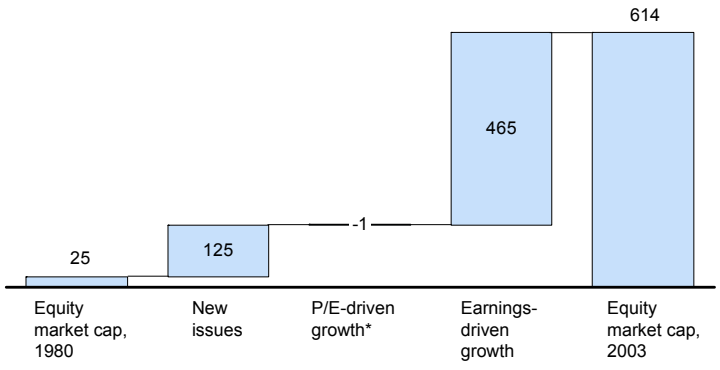
Note: In the period 1980-2003, ITL (and later EUR) depreciated by 39% against the dollar in nominal terms
Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Federal Reserve; Thomson Financial Securities Data; Datastream; Compustat

Exhibit 27

EQUITY MARKET CAPITALIZATION GROWTH IN ITALY, 1980–2003

ESTIMATE

$ Billions



Share of increase Percent	**21**	**0**	**79**	

* P/E ratio was 17 in 1980, 26 in 1999, 16 in 2003
Note: In the period 1980-2003, ITL (and later EUR) depreciated by 39% against the dollar in nominal terms
Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Federal Reserve; Thomson Financial Securities Data; Datastream; Compustat

Eastern Europe

Eastern Europe is among the global growth hot spots and will be a source for additional growth for Europe as a whole. Given its small financial stock and low depth, Eastern Europe is expected to maintain its rapid growth rate as the region converges economically with the rest of Europe.

Size and growth. Eastern Europe has experienced tremendous growth in its financial stock since 1993—an annual growth rate of 19.3 percent, or almost two and a half times the global financial stock growth rate. However, its financial stock is only $1.1 trillion, or 3 percent of Europe's total (Exhibit 11).

Depth. The current financial depth of Eastern Europe is only 99 percent of GDP, reflecting the developing nature of its financial system. If economic reforms continue to bear fruit, the region will grow for the foreseeable future as its incomes and financial depth converge to Western European levels (the eurozone's financial depth has reached 314 percent; Exhibit 11).

Asset composition. The composition of the financial stock in Eastern Europe differs considerably from that in the eurozone and reflects the strong reliance on the banking sector and an underdeveloped private debt market. Thus, the share of the bank deposits in Eastern Europe's financial stock is 46 percent, compared to only 30 percent in the eurozone. Also, a market for private debt securities is nearly nonexistent, as private debt securities account for only 3 percent of total financial stock (compared to 29 percent in the eurozone). The share of government debt securities is in line with that in the eurozone (20 percent versus 21 percent, respectively). Interestingly, the share of equity securities in Eastern Europe is much higher than in the eurozone (31 percent versus 19 percent, respectively), reflecting the multiple waves of privatizations over the past 10 years (Exhibit 4).

Since 1993, growth rates in Eastern Europe have stood out across all asset classes, especially private debt and equity (26 and 56 percent per year, respectively). The main reason for such high growth rates is the reintroduction of the private real and financial sectors in the economy in the early 1990s. Large scale denationalization and privatization processes took place, which have had an impact on the financial stock of similar magnitude. Additionally, despite

Exhibit 28

COMPOSITION OF FINANCIAL STOCK GROWTH BY REGION, 1993–2003

CAGR, percent

	US	UK	Eurozone	Eastern Europe
Equity securities	11	8	12	56
Private debt securities	11	21	11	26
Government debt securities	2*	5	8	17
Bank deposits	7	13	9	14
Average	**8.6**	**11.3**	**9.8**	**19.3**

* The US government debt securities grew much faster in 2002 (8%) and 2003 (11%)

Source: McKinsey Global Institute Global Financial Stock Database

an initial slump in economic output after the reintroduction of the capitalist economy, most economies recovered by the late 1990s and embarked on a path of rapid economic growth and development motivated by their desire to join the European Union (Exhibit 28).

4. Asia Findings

In contrast to the US, which is a single market, and Europe, which is in the process of integrating its capital markets, there is little cross-country capital market integration in Asia.[1] Thus, the Asian capital market is largely a sum of the parts—a collection of distinct, national markets. The more developed of these markets have strong links with the global capital market, yet they seek only limited cooperation with one another. Still, in this chapter we offer the aggregate picture of the individual Asian markets because it is interesting in itself and because the real sector of the Asian economies is becoming increasingly integrated through trade.[2] China is playing a particularly important role in this process, having become a major trade partner for many economies in the region (e.g., Korea) and contributing 40 percent of incremental GDP growth.

The aggregate picture of Asia combines vastly different dynamics from the individual countries: Japan is large, but declining in its importance, while China is rising as a force on the global capital market. Korea is developed and India has an untold economic potential, but neither of them come close to the size of China's financial stock. In the last section of this chapter we discuss each of these markets individually.

[1] With the exception of foreign direct investments and some cross-border bank lending.

[2] In our analysis of Asia's financial stock we include all countries with 2002 financial stock greater than $20 billion, namely Japan, China (including Hong Kong and Macao), Korea, India, Taiwan, Malaysia, Singapore, Myanmar, Turkey, Thailand, Indonesia, Philippines, and Pakistan.

The chapter is organized in the following sections:

1. Key findings

2. Context

3. Overall size, growth, and financial depth of Asia's financial stock

4. Asset composition of Asia's financial stock

5. Subregional composition of Asia's financial stock.

Interpretation of Our Results

We define financial stock as the sum of equity securities, private and government debt securities, and bank deposits. Thus, a financial stock represents the capital that is intermediated through the securities markets and the banking system in a given economy.

Two important distinctions underlie the findings in this report: intermediation by markets versus banks, and government debt securities versus other asset classes.

1. Market intermediation versus bank intermediation (also tradable versus non-tradable instruments)

The stock of equity and debt securities represents the degree of *market intermediation* in an economy, since they are the instruments used by the financial market to directly match up those who want to invest money with those who want to raise capital. Because equity and debt securities may be traded on the markets, we often refer to them collectively as *tradable instruments* (although depending on their liquidity and turnover, some securities may not be actually traded).

In contrast, the stock of bank deposits represents the degree of *bank intermediation* in an economy, since bank deposits are the capital that the banking system channels from savers to borrowers (simplistically speaking, bank deposits fund bank lending). Since capital intermediated through the banks is less easily transferable than stocks or bonds, we refer to bank deposits as *non-tradable*.

In general, governments have greater ability to regulate the banking sector than they do the financial markets. Thus, the degree of government control over the financial system bears an important relation to the extent of bank intermediation.

Note: Our bank deposit numbers include a small amount of currency in circulation that does not conform to the definition of bank intermediation; however, it has minimal impact on our findings.

2. Government debt securities versus other asset classes

Equity securities, private debt securities, and bank deposits (which fund bank loans) are the main classes of instruments for intermediating capital between borrowers on one hand and investors and savers on the other. As these three elements of the financial stock increase, the economy becomes more efficient at allocating capital to its best use.

Government debt securities are quite different. They function more as an instrument to redistribute taxes across generations than as a means to allocate capital from savers to borrowers. Although a well-developed market for government debt securities supports the development of a private debt securities market, government debt does not *directly* help firms to raise capital and grow.

The distinction between government debt and the other asset classes is not always clear cut. For example, in some developing countries the government may direct bank lending, support bank balance sheets, control corporate activity, or guarantee corporate debt. In such cases, a portion of bank deposits and corporate debt may be a disguised form of government debt.

Because of such differences across asset classes, cross-regional comparisons are meaningful only when the size of a financial stock is understood relative to its *composition*. For example, a large financial stock dominated by government debt securities is a sign of a high degree of future generation liabilities, rather than a sign of more efficient capital allocation.

1. KEY FINDINGS—ASIA

- **Size and growth.** After growing slower than the global average rate over the past 10 years (6.0 percent versus 8.4 percent per year), and thus consistently losing share in the global financial stock, Asia now commands 23 percent ($27 trillion) of the global financial stock.[3] Growth rates vary widely within Asia, with Japan at 4.0 percent per year, Korea at 11.2 percent, and China at 14.5 percent.

- **Depth.** Similar to other regions, Asia's depth has increased from 230 percent in 1993 to 330 percent in 2003. However, the drivers behind this deepening, as well as its significance, are quite different in the various parts of Asia.

- **Asset composition.** Compared to the US and Europe, bank deposits constitute a higher share of Asia's total financial stock, accounting for 41 percent of total. Government debt securities and equity securities represent 26 and 22 percent, respectively. Private debt securities are the smallest asset class with 11 percent share of total.

- **Growth components.** In contrast to the US, where equity and private debt securities drove the increase in financial stock, in Asia bank deposits and government debt securities were the dominant growth components, contributing 42 and 40 percent of the total financial stock increase since 1993, respectively.

- **Regional composition.** The four countries in Asia we analyzed in depth, Japan, China, India, and Korea, have each experienced different developments over the last two decades:

  — **Japan** remains an important part of the global capital market, although its role is rapidly diminishing. Within Asia, it has the anchoring role in Asia's financial system, accounting for two thirds of the entire Asian financial stock. The bulk of Japan's financial stock growth comes from government debt expansion (growing at 12 percent per year, or three times the overall growth rate of Japan's financial stock), while the equity and private debt securities markets have stagnated.

[3] All dollars are current US dollars. All growth rates are nominal growth rates based on financial stock numbers expressed in current US dollars; thus, they reflect inflation and exchange rate shifts.

— **China** has emerged as an important player in the global capital market. It is one of the global growth hot spots, growing nearly twice as fast as the world average (14.5 percent per year since 1993) and gaining global share in every asset class. Further, it commands a meaningful share of the global bank deposits (9 percent) and has become the country with the second largest financial stock in Asia ($5.1 trillion, or 19 percent of Asia's total).

— **India** is often compared to China for its rapid economic development. However, in the context of the global financial stock, the importance of India is still not apparent: its financial stock is one sixth that of China, its depth is also a fraction of China's (137 percent of GDP versus 323 percent), and it grows at a slower pace (11.9 percent versus 14.5 percent). This finding is surprising given India's Anglo-Saxon heritage and institutional setup.

— **Korea** is also behind China in the context of the global financial stock, despite its relatively well-developed capital markets. Korea's financial stock is the third largest in Asia, accounting for 5 percent of the total (while China's share is 19 percent). Korea has recovered from the financial crises in the region and has seen its financial stock grow at a brisk 11.2 percent per year between 1993 and 2003.

2. CONTEXT—ASIA

To provide context for our findings on how the financial stock in Asia has developed, we list a few select facts around the Asian economy and highlight recent developments in Asia's financial market by country.

Economic facts

Asia's GDP is $8.3 trillion, or 23 percent of global GDP, and its population of 3.7 billion people is 60 percent of the world's total. In the period 1993 to 2003, Asian GDP grew at an average of only 2.3 percent per year, with large differences across countries.[4] This low GDP growth is largely due to Japan's economic stagnation (since 1993, Japan's nominal GDP has fallen on average by 0.1

[4] All GDP growth figures in this report are in nominal terms.

percent per year). Several other countries, China in particular, experienced rapid economic growth and development in the same period.

Recent developments

Over the last couple of decades, Asia's capital markets experienced a mix of developments.

- The most developed economy in the region, Japan, entered a prolonged period of economic stagnation following the bursting of a stock market and real estate bubble in the early 1990s. Also, Japan has experienced significant fluctuations in the foreign exchange rate of the yen against the US dollar since 1980. These fluctuations impact our findings, especially when making cross-regional comparisons of relative size and growth[5] (see Box).
- The two nations with the world's largest populations, China and India, made considerable economic progress. China in particular has become a force in the global economy, with a significant impact on the trade balance and capital flows of developed economies. While India's economy remains much smaller than China's (nominal GDP of India is $631 billion and that of China is $1.4 trillion), its status as a preferred global destination for outsourcing of business processing jobs and IT development is increasing its global importance.
- Several countries in Southeast Asia, most notably Korea, have achieved breakthroughs in development, raising their living standards considerably, and practically joining the club of developed nations. Yet this group of countries, called the Asian Tigers,[6] was struck by a large-scale financial crisis from 1997 to 1998 that sent shock waves throughout the global financial markets.

[5] Since Japan accounts for approximately two-thirds of total financial stock in Asia, we focus on the exchange rate development of the JPY against the USD only. In the period 1980 to 1993, the JPY appreciated against the USD by 81 percent in nominal terms, while in the period 1993 to 2003 it appreciated by an additional 4 percent. Growth rates for financial stock denominated in USD in these periods are therefore higher than if the financial stock were denominated in the JPY.

[6] Asian Tiger economies include Hong Kong, Korea, Taiwan, Malaysia, Singapore, Thailand, Indonesia, and Philippines. Taiwan, Hong Kong, and Singapore avoided the financial crisis.

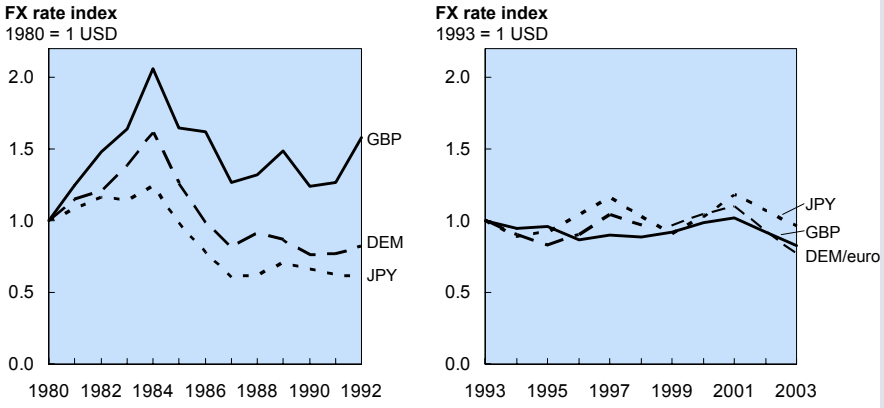
Foreign Exchange Rate Fluctuations

We express the financial stock of all countries in US dollars (to aggregate the national stocks on a global level), so foreign exchange rate dollar fluctuations against major currencies play a role in our findings on the relative size and growth of financial stock among regions in the global capital market.

Overall, exchange rate fluctuations since 1993 have been tamer than the 1980s. However, the US dollar has significantly depreciated against the euro, the British pound, and the Japanese yen since end-2001. Consequently, our findings potentially overstate the growth rates and relative sizes of the eurozone, the UK, and Japan, since these reflect not only the growth and size of the underlying financial stock in local currency, but also the impact of currency rate translation (Exhibit 1).

Exhibit 1

FOREIGN EXCHANGE RATES AGAINST THE US DOLLAR



Exchange rate USD equivalent	2001	2003
GBP*	1.45	1.79
EUR*	0.89	1.25
JPY	131.80	107.10

* Expressed conventionally; the chart has these values converted in terms of 1 USD = X foreign currency units
Source: International Monetary Fund (IMF) International Financial Statistics exchange rates – national currency per US dollar (end of period average)

To illustrate the impact of foreign exchange fluctuations, the 32 percent annual growth of eurozone bank deposits, expressed in US dollars 2001–2003, can be disaggregated into 10.3 percent annual growth in underlying bank deposit stock expressed in euros and 19.7 percent of annual growth in the foreign exchange rate of the euro against the dollar.

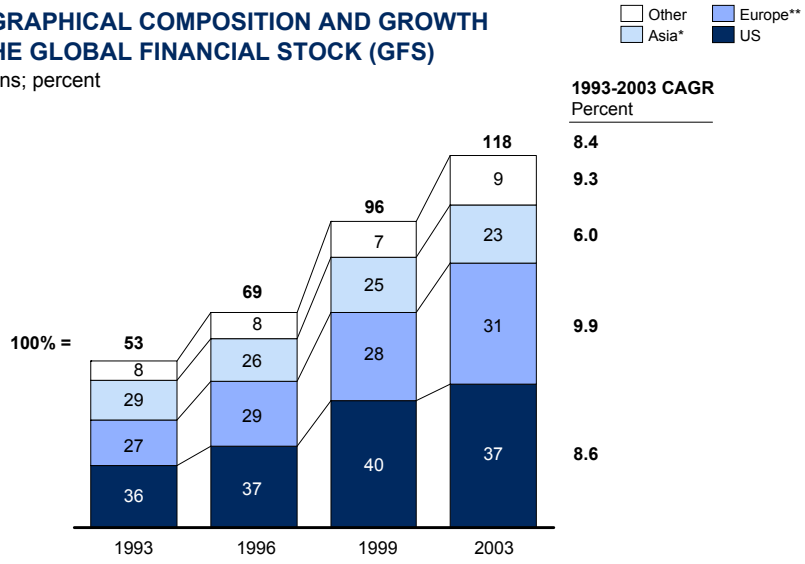
3. OVERALL SIZE, GROWTH, AND DEPTH OF ASIA'S FINANCIAL STOCK

Asia, with total 2003 financial stock of $27 trillion, has seen its share of the global financial stock fall since 1993 from 29 percent to 23 percent. Since 1993, Asia's financial stock has grown at 6.0 percent per year, much slower than the US or Europe (8.6 and 9.9 percent, respectively). However, there are significant differences within Asia: while the financial stock in Japan has grown at an average rate of only 4.0 percent, China's and India's have grown by 14.5 and 11.9 percent per year, respectively (Exhibits 2–4).

Exhibit 2

GEOGRAPHICAL COMPOSITION AND GROWTH OF THE GLOBAL FINANCIAL STOCK (GFS)

$ Trillions; percent



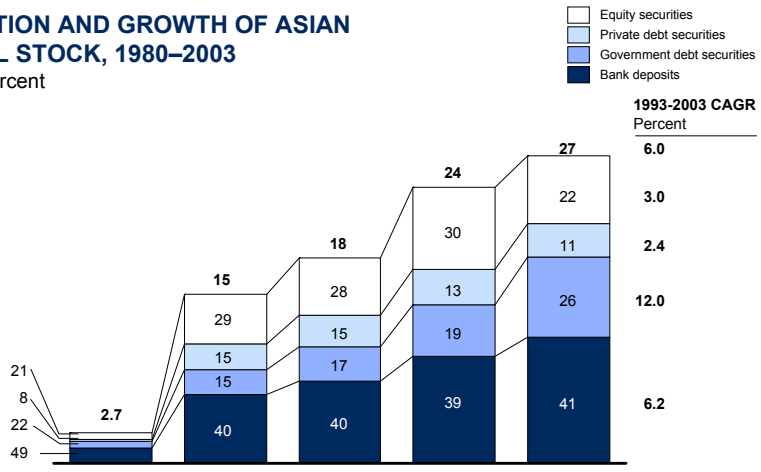
* Asian numbers include countries with 2002 financial stock >$20 billion: Japan, China, Korea, India, Taiwan, Malaysia, Singapore, Myanmar, Turkey, Thailand, Indonesia, Philippines, and Pakistan
** Europe includes the UK, the eurozone (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain), Switzerland, Sweden, Denmark, Norway, and Eastern Europe
Note: Some numbers do not add to 100% due to rounding error
Source: McKinsey Global Institute Global Financial Stock Database

As in the US and Europe, the size of the Asian financial stock relative to underlying GDP has increased over the past 10 years, from 230 percent in 1993 to 330 percent in 2003. However, in contrast to the US, where deepening reflects the differential growth of a rapidly expanding financial stock that outpaces a robust economic growth, the deepening in Asia reflects a modest growth of the financial stock and even lower growth of the underlying GDP (2.3 percent per year). Overall, Asia has still plenty of room for growth if the depth of its financial stock is to reach the depth of the US or Japan (at 397 and 411 percent, respectively; Exhibits 3–5).

Exhibit 3

COMPOSITION AND GROWTH OF ASIAN FINANCIAL STOCK, 1980–2003

$ Trillions; percent



	1980	1993	1996	1999	2003	1993-2003 CAGR, Percent
GDP (nominal) $ Trillions	2.0	6.6	7.8	7.6	8.3	2.3
Depth (FS/GDP) Percent	136	230	228	316	330	

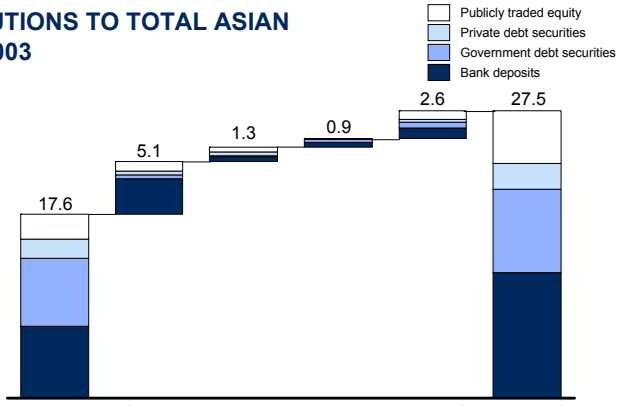
Note: Some numbers do not add to 100% due to rounding error; Asian numbers include countries with 2002 financial stock >$20 billion: Japan, China, Korea, India, Taiwan, Malaysia, Singapore, Myanmar, Turkey, Thailand, Indonesia, Philippines, and Pakistan; in the period 1980-1993 JPY appreciated by 81% against the dollar in nominal terms, while in the period 1993-2003 it appreciated further by 4%; the 1993-2003 CAGR for FS denominated in dollars is therefore higher than if it were denominated in JPY

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Global Insight

Exhibit 4

REGIONAL CONTRIBUTIONS TO TOTAL ASIAN FINANCIAL STOCK, 2003

$ Trillions



Issued in	Japan	China*	Korea	India	Rest of Asia**	Total FS
Share of Asia FS Percent	64	19	5	3	9	100
FS 1993-2003 CAGR Percent	4.0	14.5	11.2	11.9	6.6	6.0
Depth (FS/GDP) Percent	411	323	214	137	213	330

* Includes China, Hong Kong, and Macao

** Includes countries with 2002 financial stock >$20 billion: Taiwan, Malaysia, Singapore, Myanmar, Turkey, Thailand, Indonesia, Philippines, and Pakistan

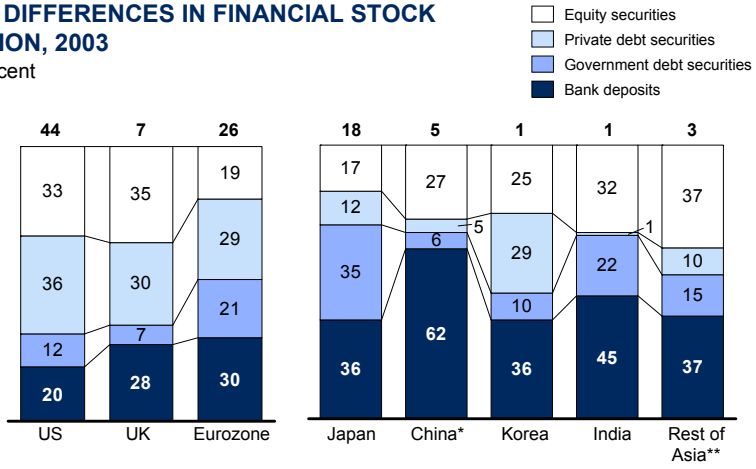
Note: In the period 1993-2003, JPY appreciated by 4% against the dollar in nominal terms; the 1993-2003 CAGR for FS denominated in dollars is therefore higher than if it were denominated in the local currency

Source: McKinsey Global Institute Global Financial Stock Database

Exhibit 5

REGIONAL DIFFERENCES IN FINANCIAL STOCK COMPOSITION, 2003

$ Trillions; percent



	US	UK	Eurozone	Japan	China*	Korea	India	Rest of Asia**
1993-2003 CAGR Percent	8.6	11.3	9.8	4.0	14.5	11.2	11.9	6.6
Depth (FS/GDP) Percent	397	385	314	411	323	214	137	213

* Includes China, Hong Kong, Macao

** Includes countries with 2002 financial stock >$20 billion: Taiwan, Malaysia, Singapore, Myanmar, Turkey, Thailand, Indonesia, Philippines, and Pakistan

Note: Some numbers do not add to 100% due to rounding error

Source: McKinsey Global Institute Global Financial Stock Database

The actual drivers of financial deepening are very different across the region. In China, the deepening is driven by the rapid growth of the economy and the development of its financial sector, and thus is the expression of China's growing prosperity (the issue of nonperforming loans and their impact in overstating true depth notwithstanding). At the same time, the deepening in Japan is driven by the increasing indebtedness of its government, a side effect of a massive fiscal stimulus injected to revive the ailing Japanese economy; thus, deepening in Japan does not necessarily reflect the improved ability of the market to intermediate private capital.

4. ASSET COMPOSITION OF ASIA'S FINANCIAL STOCK

Compared to the US and Europe, bank deposits constitute a high share of Asia's total financial stock, while private debt securities play a limited role (Exhibit 5).

Bank deposits

Bank deposits are the largest asset class in Asia, with 41 percent share of total financial stock (as compared to 20 percent for the US) and have grown in line with the total financial stock (6.2 percent versus 6.0 percent). In general, Asian markets have high shares of bank deposits, with differences in the specific levels (for example, 36 percent share in Japan and Korea and 62 percent in China; Exhibits 3, 5).

Bank deposits made the largest contribution to the increase in total financial stock, adding $5.1 trillion, or 42 percent of the total increase (Exhibit 6). China contributed the most to this increase ($2.3 trillion), since bank deposits remain the main viable investment option for households in a period of rising income levels and high savings rates. Japan contributed a further $1.6 trillion, as bank deposits were not only the traditional savings instrument but also the preferred one given the country's stagnant securities markets.

Government debt securities

Government debt securities are the second largest asset class in Asia, with 26 percent overall share. They are the fastest growing asset class since 1993 (12 percent per year). This is in sharp contrast to other regions of the world, notably the US and the UK, where government securities are the least important asset class in the financial stock and grow the slowest. Within Asia, government securities play a minimal role in China where the market for them is nascent. In contrast, they form 35 percent of Japan's financial stock[7] (Exhibits 3, 5).

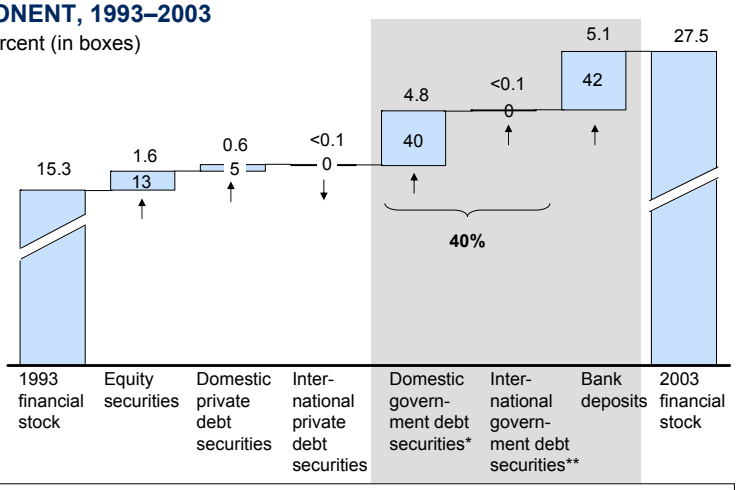
Government debt securities have contributed $4.8 trillion ($4.1 trillion of that from Japan), or 40 percent, to the increase in Asia's financial stock over the past 10 years. In fact, the rapid government debt expansion in Japan has transformed the makeup of debt in the whole region. While private and government debt were nearly equal in size in 1993, by 2003 the stock of government debt securities was more than 2.4 times the size of private debt securities stock (Exhibits 6–7).

[7] There is significant cross-holding of government debt by public institutions in Asia. This is particularly true for Japan where as much as 60 percent of government bonds are held by the public sector.

Exhibit 6

CONTRIBUTION TO ASIAN FINANCIAL STOCK GROWTH BY COMPONENT, 1993–2003

$ Trillions; percent (in boxes)

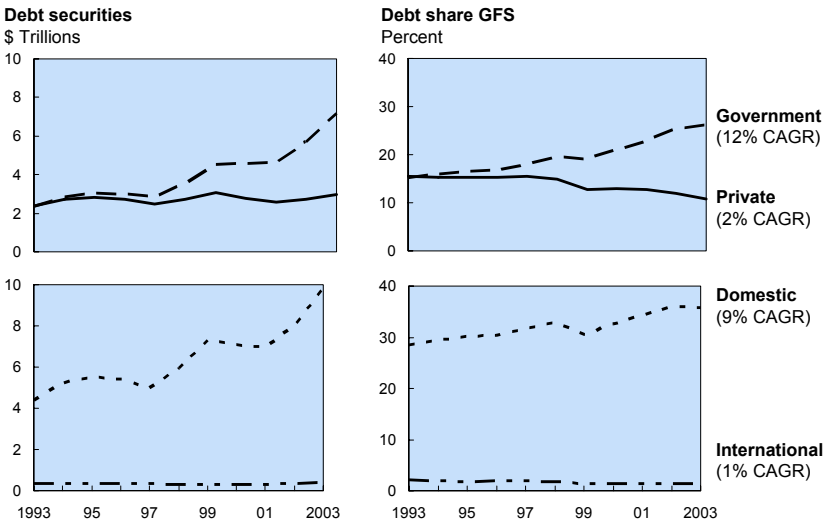


1993-2003 CAGR Percent	3.0	2.7	-0.2	12.0	12.5	6.2	

* Stock of outstanding domestic government debt securities in 2003 was $7.1 trillion
** Stock of outstanding international government debt securities in 2003 was $0.06 trillion
Note: In the period 1993-2003, JPY appreciated by 4% against the dollar in nominal terms; the 1993-2003 CAGR for FS denominated in dollars is therefore higher than if it were denominated in the local currency
Source: McKinsey Global Institute Global Financial Stock Database

Exhibit 7

GROWTH OF ASIAN DEBT SECURITIES, 1993–2003



Note: In the period 1993-2003, JPY appreciated by 4% against the dollar in nominal terms; the 1993-2003 CAGR for FS denominated in dollars is therefore higher than if it were denominated in the local currency
Source: McKinsey Global Institute Global Financial Stock Database

Equity securities

Equity securities are the third largest asset class with 22 percent share of Asia's financial stock, and have contributed 13 percent of the increase in Asia's financial stock over the past 10 years. They have grown at only 3 percent since 1993, largely due to a prolonged stagnation in the Japanese stock market that followed the bursting of a speculative bubble in the early 1990s (Exhibits 3, 6).

Private debt securities

Not only are private debt securities[8] the least important asset class, their role has diminished over time, as they have grown by a mere 2.4 percent per year since 1993. While the share of private debt securities in total financial stock was low in 1993 (15 percent), it has fallen further to only 11 percent in 2003 (as compared to 36 percent in the US; Exhibits 3, 5).

5. SUBREGIONAL COMPOSITION OF ASIA'S FINANCIAL STOCK

The geographic composition of Asia reflects immense differences in the level and path of development as well as in socio-economic and political circumstances. Below we discuss four economies—Japan, China, India, and Korea—or their significance to Asia's financial stock, their respective developmental paths, and their projected importance in the future.

Japan

On the global stage, Japan remains an important region, although its role is rapidly diminishing. Within Asia, it has the anchoring role in Asia's financial system, accounting for two thirds of the entire Asian financial stock (Exhibit 4).

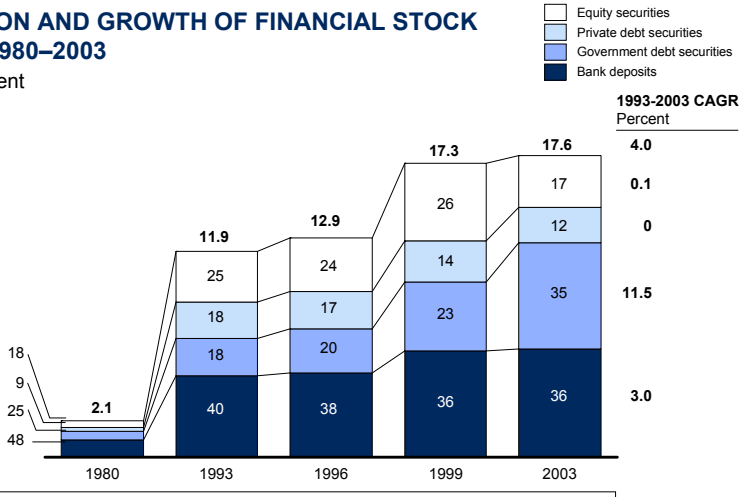
- **Size and growth.** In absolute terms, Japan's financial stock stood at $17.6 trillion in 2003, up from $2.1 trillion in 1980 and $11.9 trillion in 1993. Over the past 10 years, Japan's share of the global financial stock has shrunk from 23 percent to 15 percent. During this period, Japan's financial stock grew at only 4.0 percent, compared to 8.4 percent world average. Within Asia, Japan has been losing importance as China and other countries have grown rapidly (Exhibits 8–9).

[8] In several Asian countries the distinction between corporate and government debt is rather unclear as the governments often effectively guarantee parts of the corporate debt.

Exhibit 8

COMPOSITION AND GROWTH OF FINANCIAL STOCK IN JAPAN, 1980–2003

$ Trillions; percent



GDP (nominal) $ Trillions	1.1	4.4	4.7	4.5	4.3	-0.1
Depth (FS/GDP) Percent	200	273	275	387	411	

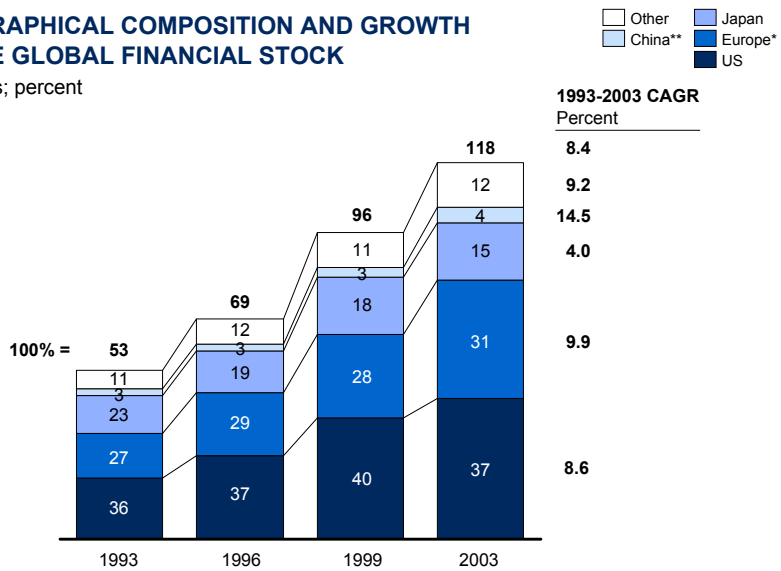
Note: Some numbers do not add to 100% due to rounding error; in the period 1980-1993 JPY appreciated by 81% against the dollar in nominal terms, while in the period 1993-2003 it appreciated further by 4%; the 1993-2003 CAGR for FS denominated in dollars is therefore higher than if it were denominated in JPY

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Global Insight

Exhibit 9

GEOGRAPHICAL COMPOSITION AND GROWTH OF THE GLOBAL FINANCIAL STOCK

$ Trillions; percent



* Europe includes the UK, the eurozone (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain), Switzerland, Sweden, Denmark, Norway, and Eastern Europe

** China also includes Hong Kong and Macao

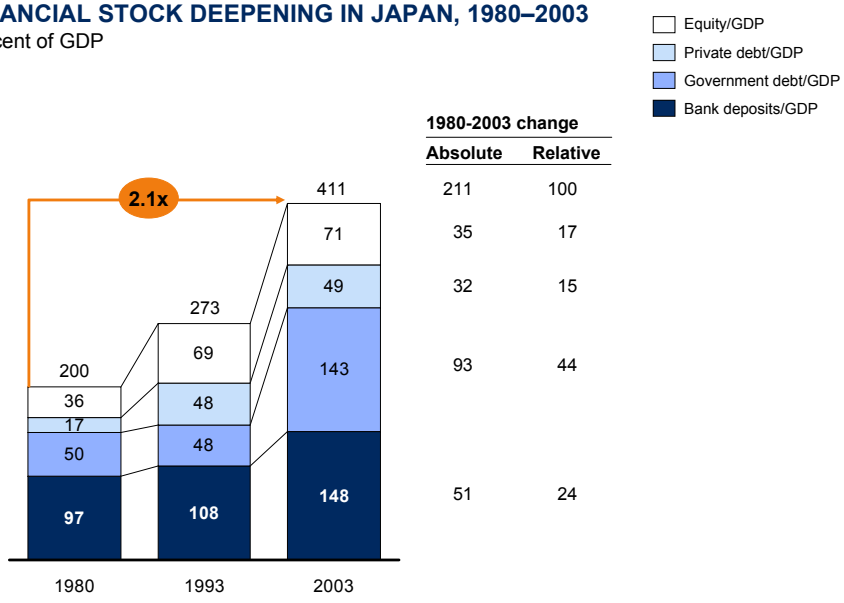
Note: 2003 shares do not add to 100% due to rounding error

Source: McKinsey Global Institute Global Financial Stock Database

- **Depth.** The size of Japan's financial stock relative to the underlying GDP increased from 200 percent of GDP in 1980, to 273 percent in 1993, to 411 percent in 2003, overtaking the depth of the financial stock in the US and the UK (397 and 385 percent, respectively). Deepening in Japan came heavily from increase in government debt (44 percent of the overall deepening between 1980 and 2003), signaling great tax liabilities of future generations. By comparison, the US deepened through growth of equities and private debt securities—a sign of improved financial intermediation between savers and borrows (Exhibit 10).

Exhibit 10

FINANCIAL STOCK DEEPENING IN JAPAN, 1980–2003
Percent of GDP



	1980-2003 change	
	Absolute	Relative
	211	100
	35	17
	32	15
	93	44
	51	24

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Global Insight

- **Asset composition.** Japan's asset composition is quite different from those of the US, the UK, and the eurozone because it is dominated by bank deposits and government debt securities, with equities and private debt securities playing a much smaller role.

  — **Bank deposits.**[9] Bank deposits are currently the largest asset class in Japan, with 36 percent share (but soon to be displaced by government debt

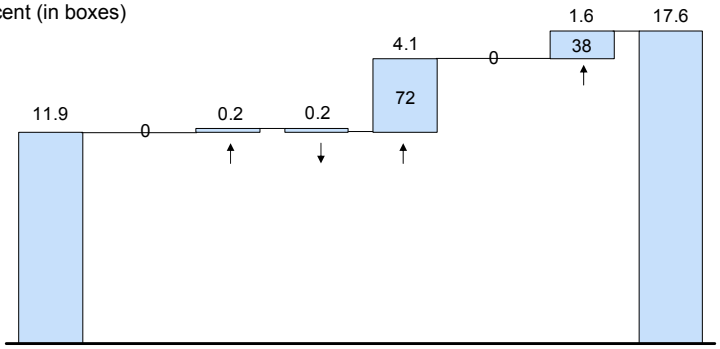
[9] Since a large share of investable Japanese postal savings is invested in government securities ($0.9 trillion or 80 percent of total) there would be a possibility for double-counting of financial stock in Japan. This is not the case however, since bank deposits in Japan do not include Japanese postal savings.

securities, which already have 35 percent share and are growing four times faster). Bank deposits contributed 38 percent of the increase in Japan's financial stock since 1993 ($1.6 trillion out of $5.7 trillion) and 32 percent of the increase since 1980. They have grown at 3 percent per year since 1993, a growth rate lower than both the total Japanese financial stock (4 percent) and the bank deposits in all other regions we analyzed. As a result of this slow pace, the global share of Japan's bank deposits shrank from 29 percent to 18 percent over the period (Exhibits 8, 11–13).

Exhibit 11

CONTRIBUTION TO JAPANESE FINANCIAL STOCK GROWTH BY COMPONENT, 1993–2003

$ Trillions; percent (in boxes)



	1993 financial stock	Equity securities	Domestic private debt securities	International private debt securities	Domestic government debt securities*	International government debt securities	Bank deposits	2003 financial stock
1993-2003 CAGR Percent		**0.1**	**0.8**	**-7.8**	**11.5**	**-0.3**	**3.0**	

* ~60% of Government bonds are held by the public sector, e.g., Bank of Japan

Note: In the period 1993-2003, JPY appreciated by 4% against the dollar in nominal terms; the 1993-2003 CAGR for FS denominated in dollars is therefore higher than if it were denominated in the local currency

Source: McKinsey Global Institute Global Financial Stock Database

— **Government debt.** Government debt securities are the other dominant asset class in Japan's financial stock, with 35 percent share. They grew at a rate of 11.5 percent, the fastest for all asset classes, thereby doubling their share of total financial stock from 18 percent in 1993 (when government debt securities were the size of private debt securities) to 35 percent in 2003 (or three times more than private debt securities). Government debt securities contributed the most to the total increase in Japanese financial stock, accounting for 72 percent of the increase over the past 10 years ($4.1 trillion out of $5.7 trillion) and for 37 percent of the total increase since 1980 ($5.7 trillion out of $15.2 trillion; Exhibits 8, 11–12).

Exhibit 12

CONTRIBUTION TO JAPANESE FINANCIAL STOCK GROWTH BY COMPONENT, 1980–2003

$ Trillions

Asset class	Component	Government	Business	Households	Total	Share Percent	
Equity securities	• New issues	–	0.1	–	2.6	1	18
	• P/E growth	–	–	0.1		1	
	• Earnings growth	–	2.4	–		16	
Private debt securities	• Increased private debt	–	1.8	–	1.9	12	13
	• Securitization	–	0.1	–		1	
Government debt securities	• Increased government debt	5.7	–	–	5.7	37	
Bank deposits	• Increase in currency	–	–	0.6	5.0	4	32
	• Increase in business bank deposits	–	0.8	–		5	
	• Increase in HH bank deposits	–	–	3.6		23	
	Total	**5.7**	**5.2**	**4.3**	**15.2**	100	
	Share Percent	37	35	28	100		

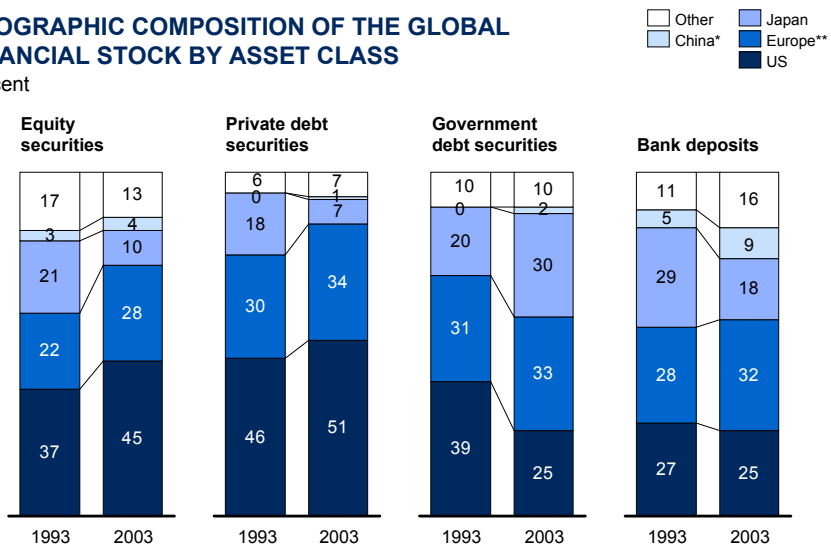
Note: In the period 1980-1993 JPY appreciated by 81% against the dollar in nominal terms, while in the period 1993-2003 it appreciated further by 4%

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Federal Reserve; Thomson Financial Securities Data; Datastream; Compustat

Exhibit 13

GEOGRAPHIC COMPOSITION OF THE GLOBAL FINANCIAL STOCK BY ASSET CLASS

Percent



* Includes China, Hong Kong, and Macao

** Europe includes the UK, the eurozone (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain), Switzerland, Sweden, Denmark, Norway, and Eastern Europe

Source: McKinsey Global Institute Global Financial Stock Database

The fast growth in government debt is a result of the Japanese government's fiscal policy expansion in the 1990s designed to stimulate the sluggish economy. In another sign of their increasing importance, the global share of Japan's government securities increased from 20 percent to 30 percent over the same period and was the only asset class where Japan gained global share (Exhibit 13).

— **Equity.** The share of equity securities in Japan's total financial stock (17 percent) is small, both by the standards of developed economies and within Asia. The stock of equity securities has been stagnating since 1993, mainly due to the bursting of the stock market bubble in the early 1990s, prolonged economic stagnation, and the resulting poor prospects for Japanese corporations. Correspondingly, the global share of Japan's equity securities fell from 21 percent to 10 percent between 1993 and 2003 (Exhibits 8, 13).

  Still, equities have contributed 18 percent of the financial stock increase since 1980, mainly through earnings growth. Stock valuations had a minimal impact on overall financial stock increase, because by 2003 P/E ratios in Japan had largely returned to the pre-bubble levels observed in 1980[10] (Exhibits 12, 14–15).

— **Private debt.** Private debt securities are the least important asset class in Japan's financial stock with only 12 percent share, which is much smaller than the shares of the US, the UK, and the eurozone (36, 30, and 29 percent, respectively). This stock has not grown at all since 1993, negatively impacted by the grim economic conditions in the country. Consequently, Japan's global share of private debt securities declined from 18 percent to 7 percent over the same period. However, private debt securities had grown in the 1980s, thus contributing 13 percent of the financial stock increase since 1980, with a minimal contribution from securitized issues (Exhibits 5, 8, 12–13).

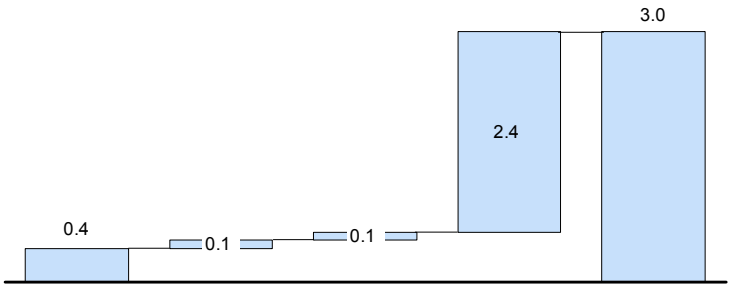
[10] Note that the analysis of drivers of stock market capitalization growth is sensitive to the start and end point. As Exhibit 16 indicates, there have been large variations in P/E ratio in most major markets since 1980. Since the bursting of the stock market bubble in 1999, the P/E ratio fell for all markets analyzed except for the US market.

Exhibit 14

EQUITY MARKET CAPITALIZATION GROWTH IN JAPAN, 1980–2003

ESTIMATE

$ Trillions



Share of increase Percent		5	5	90	

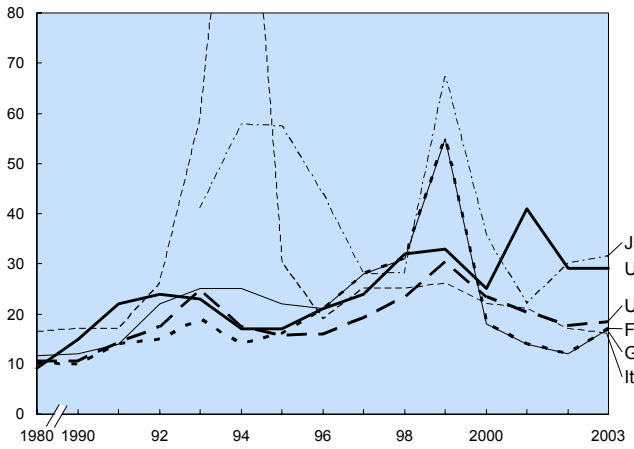
* P/E ratio was 24 in 1980, 67 in 1999, 32 in 2003

Note: Nikkei 225 stock market index was 7,063 in 1980; it reached the end-of-year peak of 38,916 in 1989, and it was 10,677 in 2003; in the period 1980-1993 JPY appreciated by 81% against the dollar in nominal terms, while in the period 1993-2003 it appreciated further by 4%

Source: McKinsey Global Institute Global Financial Stock Database; Merrill Lynch; Thomson Financial Securities Data; Datastream; Compustat

Exhibit 15

P/E RATIOS FOR MAJOR WORLD MARKETS, 1980–2003



P/E ratio	1980	1999	2003
Japan	24	67	32
US	9	33	29
UK	11	31	18
France	10	55	17
Germany	12	55	17
Italy	17	26	16

Source: Standard & Poor's (S&P); Euronext; World Federation of Exchanges

China

The Chinese financial system is less integrated with the global market than is the Chinese economy, due to capital restrictions and the inconvertibility of the yuan. Still, China has emerged as an important player in the global capital market.

- First, it is one of the global growth hot spots, growing nearly twice as fast as the world average (14.5 percent per year since 1993) and gaining global share in every asset class. Interestingly, unlike Eastern Europe, which is growing rapidly from a low financial depth, China has already developed a relatively deep financial system and its depth of 323 percent of GDP exceeds that of the eurozone (Exhibit 5).

- Second, China commands a meaningful share of the global bank deposits (9 percent), despite its smaller overall share of the global financial stock. This share has nearly doubled over the past 10 years (Exhibit 13).

- Third, China has become the country with the second largest financial stock in Asia ($5.1 trillion, or 19 percent of Asia's total); in fact, China made the largest absolute contribution to the growth of bank deposits in Asia over the past 10 years (Exhibit 4).

- Finally, China remains a wild card for financial development in Asia, given the uncertainties of when and how it will open up its capital markets, how it will deal with its nonperforming loans and develop its financial system more broadly, and how it will weather its continued rapid economic growth and social changes.

The asset composition of China's financial stock illustrates the developing nature of the country's financial system, with strong reliance on the banking system and underdeveloped securities markets (especially debt securities markets). The most striking characteristic of the Chinese financial stock is its very high share of bank deposits (62 percent), which is more than twice the world average share of 30 percent.[11] Equity securities account for a relatively

[11] As we shall see below, Chinese banks are plagued with nonperforming loans. Since banks in China are mostly state-owned and the government guarantees the deposits, a portion of bank deposits is effectively disguised government debt.

high share of total financial stock (27 percent). Finally, the stocks of private and government debt securities are small (5 and 6 percent of total, respectively), although there are signs of recent government debt expansion, especially on the local government level (Exhibit 5).

Looking ahead, it is expected that China's financial stock will continue to grow rapidly, fueled by China's economic development and high savings rates. However, nonperforming loans and thinly traded equities make it difficult to assess China's financial stock qualitatively.

- **Nonperforming loans.** The credit quality of China's financial system is rather poor. It is still developing its risk management skills, it is closed, and it is dominated by government ownership and intervention.[12] While it is impossible to give an exact outside-in estimate of the share of nonperforming loans on the balance sheet of Chinese banks, guesses range from 25 to 60 percent. Assuming that the government would not allow major loss of deposits in the case of bank failures and would take over the burden from the state-owned banks in the process of resolving the nonperforming loans problem, government debt could increase significantly.

- **Thinly traded equities.** A large share of the Chinese market capitalization comes from the flotation of a small portion of the equity of state-owned enterprises. Equities are thinly traded and their true value is difficult to gauge: some think that current valuations represent speculative hype, while others believe that stocks are traded at significant discount because they represent government-run enterprises with limited market control.

India

India is often compared to China for its rapid economic development. Some even go so far as to claim that the two economies compete against each other in terms of their role in the global economy. However, this certainly does not seem to be the case in the financial sector, as India's financial stock is smaller

[12] There is a significant amount of government-directed lending to borrowers who may not be able to repay the loans.

than China's, both in absolute terms and relative to the underlying economy, and also grows at a slower pace. This finding is in itself quite puzzling if we consider India's long Anglo-Saxon tradition in the financial markets and its institutional settings, which are considerably more favorable than those in China.

- **Size and growth.** At $0.9 trillion, India's financial stock is about one sixth that of China's, despite India's more open financial sector. This difference is only partially explained by the difference in the size of the underlying economies: the GDP of China is $1.4 trillion, or 2.2 times the size of India's GDP of $631 billion. Some claim that China's financial stock is overstated due to its nonperforming loans, and therefore its lead over India is not as pronounced. However, even if we assume that 25 percent of China's bank deposits can be wiped out because of nonperforming loans, the financial stock of China would be approximately $4.3 trillion, still 4.8 times the size of India's. While growing faster than the world average, India's financial stock has not grown as fast as China's over the past 10 years (growth rates of 11.9 and 14.5 percent, respectively; Exhibit 4).

- **Depth.** At 137 percent of GDP, India's financial depth is quite low, especially when compared to China's depth of 323 percent. However, India maintains its potential for further deepening, for example, through large-scale privatization of state-owned enterprises (Exhibit 4).

- **Asset composition.** The asset compositions of India and China exhibit some similarities, but also some differences. On one hand, in both countries bank deposits are the most important asset class (with 62 percent share in China and 45 percent in India), while private debt securities are the least important given the early stages of development of their market (respective shares are 5 and 1 percent). On the other hand, while unimportant in China, government debt securities account for 22 percent of India's financial stock[13] (Exhibit 5).

[13] However, this difference in asset composition may be overstated, since a part of the bank deposit stock in China may indeed be disguised government debt, since the government both directs lending and owns and/or implicitly supports China's banks.

Korea

Korea has a relatively developed capital market and the largest financial stock in the group of the so-called Asian Tiger countries, accounting for $1.3 trillion, or 5 percent of total financial stock in Asia (compared to China's 19 percent share). Despite the fact that Korea was affected by the 1997–1998 financial crisis in the region, it has enjoyed rapid growth in its financial stock since 1993 (11.2 percent per year). Financial depth in Korea is 214 percent, which is significantly less than in Japan (411 percent) and also less than in China (323 percent), indicating that Korea has still a lot of room to grow its financial stock (Exhibits 4–5).

While Korea is similar to Japan in that the largest asset class of Korea's financial stock is bank deposits (36 percent share), it is very different from Japan when it comes to the other asset classes. Private debt and equity securities command 29 and 25 percent share, respectively, while the role of government debt securities is minimal with only 10 percent of the total financial stock (Exhibit 4).

Appendix

The Appendix is a technical note that documents the McKinsey Global Institute Global Financial Stock Database and addresses its possible limitations and their impact on our overall conclusions. Please refer to the Introduction for an overall description of our approach and research database.

ADDITIONAL INFORMATION ON OUR RESEARCH DATABASE

For the purposes of our research, we have constructed a database with financial stock data from more than 100 countries, which we can then group for regional analysis. Exhibits 1 and 2 describe how we grouped these countries for the analysis in this report. It is important to note that the US, the eurozone, the UK, and Japan alone account for 80 percent of the financial stock.

As discussed in the Introduction, for each country in the database we have collected data on the stocks of equity securities, private debt securities, government debt securities, and bank deposits. Exhibit 3 lays out a more detailed map of the data components in the database and also provides a sense of their respective global sizes.

In the Introduction we also list the three key data sources upon which our research database is built (Standard & Poor's, Bank for International Settlements, and International Monetary Fund). Where only one or two of these sources have data on a given country, the data set for that country is incomplete but is included in the overall figures. In practice, the missing data is for countries that make up only a small portion of the overall financial stock.

Exhibit 1

COUNTRIES BY REGION (1 of 2)

Region	Subregion	Countries included		
US	n/a	United States of America		
Europe	Eurozone	Austria Belgium Finland France	Germany Greece Ireland Italy	Luxembourg Netherlands Portugal Spain
	UK	United Kingdom		
	Switzerland	Switzerland		
	Eastern Europe	Albania Belarus Bosnia and Herzegovina Bulgaria Croatia Czech Republic	Estonia Hungary Latvia Lithuania Macedonia Poland	Romania Russian Federation Slovak Republic Slovenia Ukraine
	Rest of Europe	Denmark Iceland	Norway Sweden	
Asia	Japan	Japan		
	China	China	Hong Kong	Macao
	Korea	Korea		
	India	India		
	Rest of Asia	Indonesia Malaysia Myanmar	Pakistan Philippines Singapore	Taiwan Thailand Turkey

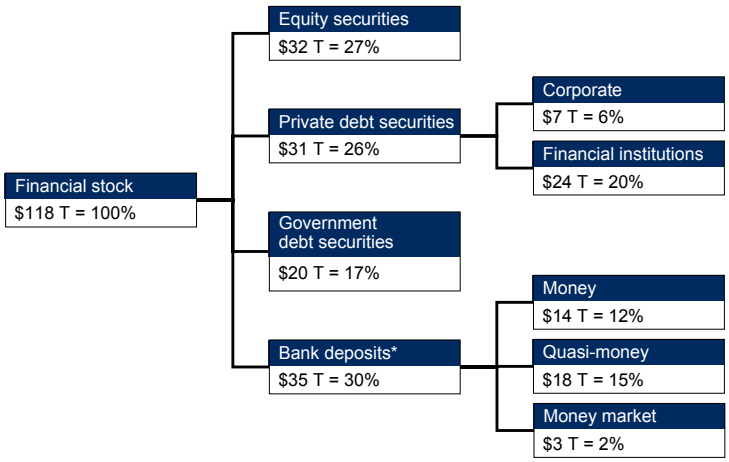
Exhibit 2

COUNTRIES BY REGION (2 of 2)

Region	Countries included		
Rest of the world	Algeria Angola Argentina Aruba Australia Bahamas Bahrain Bangladesh Barbados Bermuda Bolivia Botswana Brazil Cameroon Canada Cayman Islands Chile Colombia Costa Rica Cote d'Ivoire Cyprus Dominican Republic Ecuador Egypt El Salvador	Ethiopia Ghana Guatemala Honduras Iran Israel Jamaica Jordan Kazakhstan Kenya Kuwait Lebanon Libya Mali Malta Mauritius Mexico Moldova Morocco Namibia Nepal Netherlands Antilles New Zealand Nicaragua Nigeria	Oman Panama Paraguay Peru Qatar San Marino Saudi Arabia Senegal South Africa Sri Lanka Sudan Syrian Arab Republic Tanzania Trinidad and Tobago Tunisia United Arab Emirates Uruguay Venezuela Vietnam West Bank and Gaza West Indies Yemen, Rep. Zimbabwe

Exhibit 3

DATA COMPONENTS AND RELATIVE GLOBAL SIZES, 2003



* Percentages do not add to 30 due to rounding error. Our bank deposits data maps to the data in the monetary survey (section 30) of International Monetary Fund (IMF) International Financial Statistics. In short, with the exception of a small amount of currency in circulation (global currency stock was only $2.4 trillion in 2003, of 2% of global financial stock), Money + Quasi-money essentially represents the stock of private bank deposits
Money (line 34) = transferable deposits other than those of the central government + currency outside deposit money banks; same as M1
Quasi-money (line 35) = time, savings, and foreign currency deposits of resident sectors other than central government; same as M2 – M1
Money Market Instruments (line 36aa) = same as M3 – M2. Money market instruments may or may not be included in the global financial stock (GFS) numbers. Given their small size, this choice does not affect our general conclusions. If we were to exclude money market from our analysis, only a few countries would be impacted – e.g., the share of bank deposits in the US would be even smaller

Exhibits 4 through 10 list the countries in the database, map the data available for them, and also provide a sense for which of the available data points are above $5 billion, in 2003 size.

POSSIBLE LIMITATIONS OF OUR APPROACH AND DATABASE

Recognizing the fact that some of our choices may limit the conclusions we are able to draw from our data, we have been thoughtful about identifying possible limitations of our approach and gauging their impact on the validity of our conclusions (Exhibits 11–15). Overall, while alternative approaches could provide additional insights into the workings of the global capital market, we believe that our research database offers a solid fact base to develop a point of view on the evolution of the global capital market, and that none of the identified limitations compromise our findings.

Potential limitations include the fact that global financial stock figures are expressed in current US dollars, which overlays foreign exchange rate

Exhibit 4

DATA AVAILABILITY BY COUNTRY (1 of 7)

Yes = data available; stock >$5 billion
+ = data available; stock $1 billion-5 billion
- = data not available or stock <$1 billion

Region / Country	Equity securities	Debt securities: Government	Debt securities: Corporate	Debt securities: Financial institutions	Bank deposits: Money	Bank deposits: Quasi-money	Bank deposits: Money market
US							
United States of America	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Europe – eurozone							
Austria	Yes	Yes	Yes	Yes	Yes*	Yes*	Yes*
Belgium	Yes	Yes	Yes	Yes			
Finland	Yes	Yes	Yes	Yes			
France	Yes	Yes	Yes	Yes			
Germany	Yes	Yes	Yes	Yes			
Greece	Yes	Yes	Yes	++			
Ireland	Yes	Yes	Yes	Yes			
Italy	Yes	Yes	Yes	Yes			
Luxembourg	Yes	Yes	Yes	Yes			
Netherlands	Yes	Yes	Yes	Yes			
Portugal	Yes	Yes	Yes	Yes			
Spain	Yes	Yes	Yes	Yes			
Europe – UK							
United Kingdom	Yes	Yes	Yes	Yes	Yes**		
Europe – Switzerland							
Switzerland	Yes	Yes	Yes	Yes	Yes	Yes	-

* Reported on consolidated basis for the eurozone and not broken down by individual country. The eurozone numbers are published in terms of M1, M2, and M3. We map these money aggregates to our database as follows: Money = M1; Quasi-money = M2 – M1; Money Market = M3 – M2

** Reported as a single number, M4 = notes and coin in circulation outside the Bank of England and banking institutions in the UK + non-bank private sector sterling deposits held with UK banking institutions. M4 differs from Money + Quasi-money because it excludes private sector foreign currency deposits, and sterling foreign currency deposits of official entities (local authorities and public enterprises)

Exhibit 5

DATA AVAILABILITY BY COUNTRY (2 of 7)

Yes = data available; stock >$5 billion
+ = data available; stock $1 billion-5 billion
- = data not available or stock <$1 billion

Region / Country	Equity securities	Debt securities: Government	Debt securities: Corporate	Debt securities: Financial institutions	Bank deposits: Money	Bank deposits: Quasi-money	Bank deposits: Money market
Europe – Eastern Europe							
Albania	-	-	-	-	++	++	-
Belarus	-	-	-	-	++	++	-
Bosnia and Herzegovina	-	-	-	-	++	++	-
Bulgaria	++	++	-	-	++	Yes	-
Croatia	Yes	Yes	-	-	Yes	Yes	-
Czech Republic	Yes	Yes	++	Yes	Yes	Yes	-
Estonia	++	-	-	-	++	++	-
Hungary	Yes	Yes	++	++	Yes	Yes	-
Latvia	++	-	-	-	++	++	-
Lithuania	++	++	-	-	++	++	-
Macedonia	-	-	-	-	-	++	-
Poland	Yes	Yes	-	-	Yes	Yes	-
Romania	Yes	++	++	-	++	Yes	-
Russian Federation	Yes	Yes	Yes	++	Yes	Yes	Yes
Slovak Republic	++	++	-	-	Yes	Yes	-
Slovenia	Yes	++	-	-	++	Yes	-
Ukraine	++	++	-	-	Yes	Yes	-
Europe – Rest of Europe							
Denmark	Yes	Yes	Yes	Yes	Yes	Yes	-
Iceland	Yes	++	Yes	Yes	++	++	-
Norway	Yes	Yes	Yes	Yes	Yes	Yes	-
Sweden	Yes	Yes	Yes	Yes	Yes	-	-

Exhibit 6

DATA AVAILABILITY BY COUNTRY (3 of 7)

Yes = data available; stock >$5 billion
+ = data available; stock $1 billion-5 billion
- = data not available or stock <$1 billion

Region Country	Equity securities	Debt securities			Bank deposits		
		Government	Corporate	Financial institutions	Money	Quasi-money	Money market
Asia – Japan							
Japan	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Asia – China							
China	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hong Kong	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Macao	-	-	-	-	++	Yes	-
Asia – Korea							
Korea	Yes	Yes	Yes	Yes	Yes	Yes	-
Asia – India							
India	Yes	Yes	++	++	Yes	Yes	-
Asia – Rest of Asia							
Indonesia	Yes	-	-	++	Yes	Yes	-
Malaysia	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Myanmar	-	-	-	-	Yes	Yes	-
Pakistan	Yes	-	-	-	Yes	Yes	-
Philippines	Yes	Yes	Yes	++	Yes	Yes	-
Singapore	Yes	Yes	Yes	Yes	Yes	Yes	-
Taiwan	Yes	Yes	Yes	Yes	-	-	-
Thailand	Yes	Yes	Yes	Yes	Yes	Yes	++
Turkey	Yes	Yes	-	-	Yes	Yes	-

Exhibit 7

DATA AVAILABILITY BY COUNTRY (4 of 7)

Yes = data available; stock >$5 billion
+ = data available; stock $1 billion-5 billion
- = data not available or stock <$1 billion

Region Country	Equity securities	Debt securities			Bank deposits		
		Government	Corporate	Financial institutions	Money	Quasi-money	Money market
Rest of the world							
Algeria	-	-	-	-	Yes	Yes	-
Angola	-	-	-	-	-	++	-
Argentina	Yes	Yes	Yes	Yes	Yes	Yes	-
Aruba	-	-	-	Yes	-	-	-
Australia	Yes	Yes	Yes	Yes	Yes	Yes	-
Bahamas	-	-	-	++	-	++	-
Bahrain	Yes	-	-	-	++	Yes	-
Bangladesh	++	-	-	-	++	Yes	-
Barbados	++	-	-	-	-	++	-
Bermuda	++	-	-	Yes	-	-	-
Bolivia	++	-	-	-	-	++	-
Botswana	++	-	-	-	-	++	-
Brazil	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cameroon	-	-	-	-	++	++	-
Canada	Yes	Yes	Yes	Yes	Yes	Yes	-
Cayman Islands	-	-	-	Yes	-	-	-
Chile	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Colombia	Yes	Yes	-	-	Yes	Yes	-
Costa Rica	++	++	-	-	++	++	-
Cote d'Ivoire	++	-	-	-	++	++	-
Cyprus	++	++	-	++	++	Yes	-
Dominican Republic	-	++	-	-	++	++	-

Exhibit 8

DATA AVAILABILITY BY COUNTRY (5 of 7)

Yes = data available; stock >$5 billion
+ = data available; stock $1 billion-5 billion
- = data not available or stock <$1 billion

Region Country	Equity securities	Debt securities			Bank deposits		
		Government	Corporate	Financial institutions	Money	Quasi-money	Money market
Rest of the world (continued)							
Ecuador	++	-	-	-	-	-	-
Egypt	Yes	++	-	-	Yes	Yes	-
El Salvador	++	++	-	-	-	-	-
Ethiopia	-	-	-	-	++	++	-
Ghana	-	-	-	-	++	++	-
Guatemala	-	-	-	-	++	++	-
Honduras	-	-	-	-	-	++	-
Iran	Yes	++	-	-	Yes	Yes	-
Israel	Yes	++	Yes	++	Yes	Yes	-
Jamaica	Yes	++	-	-	++	++	-
Jordan	Yes	-	-	-	++	Yes	-
Kazakhstan	++	-	-	-	++	++	-
Kenya	++	-	-	-	++	++	-
Kuwait	-	-	-	++	Yes	Yes	-
Lebanon	-	Yes	-	-	++	Yes	-
Libya	-	-	-	-	Yes	++	-
Mali	-	-	-	-	++	-	-
Malta	++	-	-	-	++	Yes	-
Mauritius	++	-	-	++	-	++	-
Mexico	Yes	Yes	Yes	++	Yes	Yes	Yes
Moldova	++	-	-	-	-	-	-
Morocco	Yes	-	-	-	Yes	Yes	-

Exhibit 9

DATA AVAILABILITY BY COUNTRY (6 of 7)

Yes = data available; stock >$5 billion
+ = data available; stock $1 billion-5 billion
- = data not available or stock <$1 billion

Region Country	Equity securities	Debt securities			Bank deposits		
		Government	Corporate	Financial institutions	Money	Quasi-money	Money market
Rest of the world (continued)							
Namibia	-	-	-	-	++	-	-
Nepal	-	-	-	-	-	++	-
Netherlands Antilles	-	-	-	Yes	-	++	-
New Zealand	Yes	Yes	++	++	Yes	Yes	-
Nicaragua	-	-	-	-	-	++	-
Nigeria	Yes	-	-	-	Yes	Yes	-
Oman	++	-	-	-	++	Yes	-
Panama	++	++	-	-	++	Yes	-
Paraguay	-	-	-	-	-	++	-
Peru	Yes	++	++	-	Yes	Yes	-
Qatar	-	++	++	-	++	Yes	-
San Marino	-	-	-	-	-	++	-
Saudi Arabia	Yes	-	-	-	Yes	Yes	-
Senegal	-	-	-	-	++	-	-
South Africa	Yes	Yes	Yes	Yes	Yes	Yes	++
Sri Lanka	++	-	-	-	++	Yes	-
Sudan	-	-	-	-	++	-	-
Syrian Arab Republic	-	-	-	-	Yes	Yes	-
Tanzania	++	-	-	-	++	++	-
Trinidad and Tobago	Yes	-	++	-	++	++	-
Tunisia	++	++	-	-	Yes	Yes	-
United Arab Emirates	-	-	-	-	Yes	Yes	-

Exhibit 10

DATA AVAILABILITY BY COUNTRY (7 of 7)

Yes = data available; stock >$5 billion
+ = data available; stock $1 billion-5 billion
- = data not available or stock <$1 billion

Region Country	Equity securities	Debt securities			Bank deposits		
		Government	Corporate	Financial institutions	Money	Quasi-money	Money market
Rest of the world (continued)							
Uruguay	-	++	-	-	-	Yes	-
Venezuela	-	Yes	-	-	Yes	Yes	-
Vietnam	-	-	-	-	Yes	Yes	-
West Bank and Gaza	Yes	-	-	-	-	-	-
West Indies	-	-	-	Yes	-	-	-
Yemen, Rep.	-	-	-	-	++	++	-
Zimbabwe	Yes	-	-	-	++	-	-

movements onto local currency financial stock values and growth; the fact that debt securities are measured at their face value, potentially overstating their market value and concealing the volatility in those market values; and the exclusion of mutual funds, private equity, venture capital, and derivatives from our stock numbers.

Of these, we treat derivatives separately because, despite their importance and scale, they represent a different dimension of the global capital market and are not a part of the market where investors fund borrower activities. The remaining issues do not impact the overall direction and magnitude of our findings as they each have a limited impact on the estimation of the global financial stock (less than 10 percent) and many of them work in opposite directions (for example, including mutual funds, private equity, and venture capital would increase global financial stock, while measuring debt securities at market values would decrease it).

Exhibit 11

POSSIBLE LIMITATIONS OF OUR APPROACH (1 of 2)

Approach	Rationale	Impact on findings
• Data expressed in current US dollars	• Ability to compare financial stock across countries and aggregate data regionally and globally • Data reported in those terms • FX rate movements of the US dollar against major currencies has been relatively calm in the past 10 years	• Financial stock for individual countries may be overstated/ understated due to foreign exchange movements; thus, financial stock growth in our numbers reflects not only growth in local currency stock, but also exchange rate movements • Impact is limited by the fact that 37% of GFS is in the US (no FX impact) and that recent movements have been moderate relative to history. Given respective weights in the GFS and FX movements of major currencies since 1993, the impact is within 10% of our estimates
• Debt securities are measured at face value	• Data reported in those terms and not readily available for market values • Clear economic meaning – the outstanding liabilities that borrowers eventually owe	• Financial stock figures potentially inflate the current market value of debt securities and do not exhibit the accompanying value volatility • Academic research* estimates market value-to-par ratio in the range of 0.80 to 0.99, depending on the debt type and the year (e.g., range is 0.9 to 0.99 for federal government debt; 1981 had lowest ratios). Therefore, outstanding values for all securities could potentially be overstated by ~5 to 15%. The impact on the overall GFS would therefore be less than 6% given debt's share • Volatility of fixed income indices based on market value suggest up to 10% deviation from growth of outstanding values of debt securities – or less than 5% of GFS given debt's share

* Strong, John S., "The Market Valuation of Credit Market Debt," *Journal of Money, Credit, and Banking*, August 1989

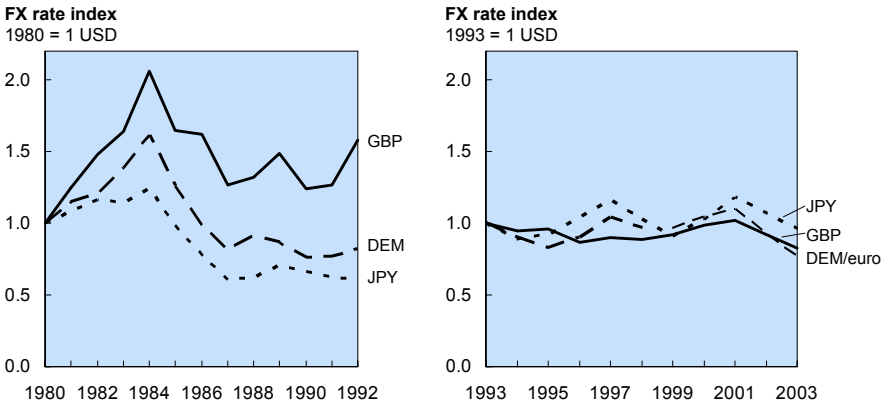
Exhibit 12

POSSIBLE LIMITATIONS OF OUR APPROACH (2 of 2)

Approach	Rationale	Impact on findings
• Private equity and venture capital not included in the GFS	• Funds intermediated outside of the banks and securities markets • Consistency with 1994 approach	• Had we included private equity and venture capital into our numbers, our GFS totals would have been only slightly higher: private equity capital in the US and Europe combined nears $1 trillion and venture capital in the US peaked at $100 billion
• Mutual funds are not included in the GFS	• Avoid double counting of underlying assets; mutual funds play an important role in facilitating access to diversified assets but do not increase the underlying financial stock	• The overall impact on our numbers would be limited: in the US, mutual fund assets have fluctuated between 9 and 12% of total financial stock since 1997; in Europe, they have been approximately 4% of financial stock since 1995
• Inter-bank loans are not included	• Consistency with 1994 approach • Data not readily available on a global basis	• GFS figures understate the stock of capital floating in the financial system. Impact appears limited: for the US inter-bank loans were $313 billion in May 2004, less than 1% of financial stock
• Derivatives not included in financial stock	• Derivatives do not represent capital that has been intermediated between investors and borrowers	• We address growth in derivatives separately as we treat them as a separate dimension of the global capital market (GCM) • Otherwise, the size of the derivatives market is twice that of the GFS

Exhibit 13

FOREIGN EXCHANGE RATES AGAINST THE US DOLLAR



Exchange rate USD equivalent	2001	2003
GBP*	1.45	1.79
EUR*	0.89	1.25
JPY	131.80	107.10

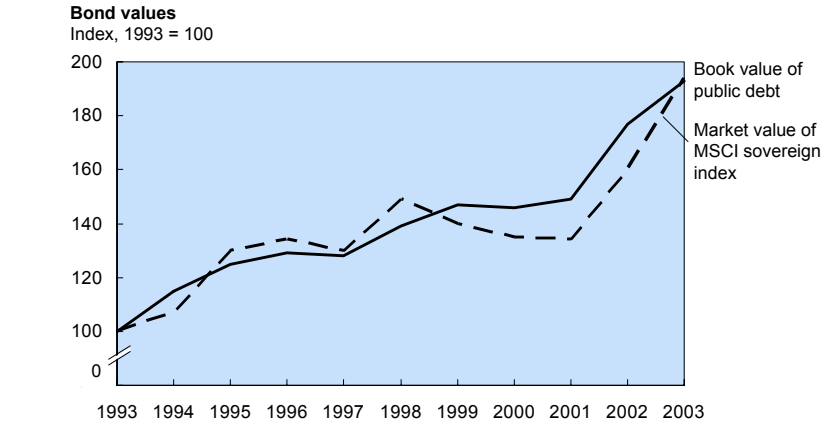
* Expressed conventionally; the chart has these values converted in terms of 1 USD = X foreign currency units

Source: IMF International Financial Statistics exchange rates – national currency per US dollar (end of period average)

Exhibit 14

IMPACT OF MEASURING DEBT SECURITIES STOCK BY FACE VALUE RATHER THAN MARKET VALUE

ILLUSTRATIVE

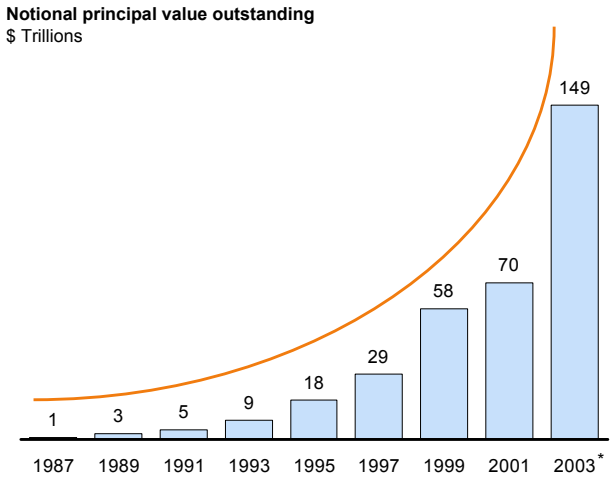


Deviation between series Percent	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	0	-6	4	3	2	7	-5	-7	-10	-9	1

Source: Morgan Stanley Capital International (MSCI) World Sovereign Index; McKinsey Global Institute Global Financial Stock Database

Exhibit 15

GLOBAL DERIVATIVES MARKET SIZE



* Breakdown: $142.3 trillion interest rate and currency derivatives (not reported separately by ISDA), $3.0 trillion credit default swaps, and $3.4 trillion equity derivatives

Source: International Swaps and Derivatives Association (ISDA) Market Survey

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