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The Financial Wealth of Corporations: A First Look at Sectoral Balance Sheet Data

by Yuko Hashimoto and Noriaki Kinoshita

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The Financial Wealth of Corporations: A First Look at Sectoral Balance Sheet Data

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Abstract

This paper analyzes the nonfinancial corporation (NFC) sector's financial balance sheets using data available from the OECD. In our sample of 20 advanced economies, corporate debt in percent of GDP—a frequently used indicator in the context of corporate balance sheet adjustments—has remained high since the global financial crisis, with significant differences in the level and the trend between the high-debt and low-debt groups. Looking at financial balance sheets more broadly, including net financial wealth, the NFC sector's balance sheet conditions have improved recently, particularly reflecting accumulation of corporate cash and valuation gains on financial assets. Longer time series and more granular data for Japan, which has been experiencing a prolonged period of balance sheet adjustments, indicate that a continued strengthening of balance sheets might occur even after debt levels are reduced.

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I. Introduction

Advanced economies experienced a sharp contraction of private fixed investment during and after the global financial crisis, a key factor holding back global growth.[2] Both housing and business investment fell sharply during the crisis, but the latter contributes to the bulk of the ongoing slump. While weak economic activity is the main factor affecting business investment and employment, the need to repair corporate balance sheets is also playing a role, especially in Europe.[3]

A significant number of papers have examined the balance sheet adjustments of the nonfinancial corporation (NFC) sector in advanced economies.[4] This paper seeks to complement previous studies in the following three respects:

- The focus of most of the existing studies is on the process of reducing corporate debt, particularly in proportion to GDP. We propose to look at the balance sheet conditions more broadly using a set of balance sheet indicators.

- The flow adjustments are often described by saving and investment on the real side and net lending/net borrowing (NL/NB) on the financial side. We consider it necessary to look also at how the flow balance translates into changes in financial balance sheets at the level of financial instruments because the composition of adjustments could have important implications.

- Relatively little attention has been paid to the role of valuation effects and other volume changes affecting the balance sheets. We explicitly examine these effects—"other economic flows (OEFs)" in statistical terms—as an important driver of changes in balance sheet conditions.

The approach in this paper allows us to describe changes in financial balance sheets comprehensively with instrument-level breakdowns and in a flow-stock consistent manner, thus providing a fuller understanding of the evolution of the financial wealth of the NFC sector.

The sectoral accounts and balance sheet data have long been an essential part in the System of National Accounts (SNA). The importance of these data was highlighted in October 2009 when the G20 Data Gaps Initiative identified improved compilation and dissemination of

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[2] See "Private Investment: What's the Holdup?" in IMF, World Economic Outlook, April 2015.

[3] See Bakker and Zeng (2013). An earlier analysis of the issue is found in Jaeger (2003).

[4] See, for example, European Commission (2010, 2014), European Central Bank (2012, 2014), Ruscher and Wolff (2013).

sectoral accounts as one of 20 recommendations to close major financial and economic information gaps.[5] Subsequently, the IMF's Special Data Dissemination Standard (SDDS) Plus included sectoral financial balance sheets as one of nine new data categories, in an effort to help close this gap through the IMF's Data Standards Initiatives.[6] Reflecting these efforts to enhance data availability for financial stability analysis, consistent and cross-country comparable aggregated data based on the SNA are expected to become more available in the coming years.

The paper is organized as follows: Section II provides an overview of the developments surrounding the NFC sector's financial balance sheets. Section III provides a detailed account of the corporate balance sheet adjustments in Japan. Section IV concludes.

II. Corporate Balance Sheets in Selected Advanced Economies

A. The Data Structure

The balance sheet data used in this paper are derived from the SNA. The data record stock positions of financial assets and liabilities for each economic sector and by financial instruments. This dataset is referred to as "sectoral financial balance sheet" data. The SNA provides for stock positions as well as flow transactions, or "financial accounts". The financial balance sheet data, together with the financial accounts data, enable us to look at the evolution of financial transactions and positions by financial instruments and by domestic sectors and vis-à-vis the rest of the world. The Data Appendix provides a more in-depth explanation of the structure and components of the sectoral accounts in the SNA as well as the data source and the data tables for the NFC sector in 20 advanced economies which constitute our sample.[7] In this section, we construct and use net financial wealth (NFW) and other balance sheet indicators as shown below (Table 1).

NFW is calculated by taking the sum of all the financial assets and subtracting the financial liabilities except for equity and investment fund shares. It should be noted that NFW is a distinct concept from "net worth" as defined in the SNA which covers all nonfinancial assets, financial assets, and liabilities. NFW focuses on financial assets and liabilities and, for the NFC sector, excludes equity liability ("Equity and investment fund shares" in the SNA terminology) from the calculation because NFW measured in this way represents financial

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[5] See Heath (2013).

[6] Dissemination of sectoral balance sheet data (quarterly periodicity within one quarter after the reference period) is encouraged under the SDDS and required under the SDDS Plus.

[7] The sample is selected based on the data availability and includes: Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Japan, Netherlands, Norway, Portugal, Slovak Republic, Spain, Sweden, United Kingdom, and United States.

wealth which ultimately belongs to the shareholders.[8] Although we recognize the important roles that non-financial assets play in the NFC sector, our present analysis is limited to financial balance sheets.

Table 1. Financial Balance Sheet Components and Aggregates

	Balance sheet aggregates				
	Net financial wealth[1]	Cash	Equity asset	Debt	Equity liability
Assets					
Monetary gold and SDRs[2]					
Currency and deposits					
Debt securities[3]					
Loans					
Equity and investment fund shares					
Insurance, pensions, and standardized guarantee schemes					
Financial derivatives and employee stock options					
Other accounts receivable/payable[4]					
Liabilities					
Monetary gold and SDRs[2]					
Currency and deposits					
Debt securities[3]					
Loans					
Equity and investment fund shares					
Insurance, pensions, and standardized guarantee schemes					
Financial derivatives and employee stock options					
Other accounts receivable/payable[4]					

[1]Calculated by taking the sum of the instruments shaded in blue and subtracting the instruments shaded in pink.
[2]Values are zero for nonfinancial corporations.
[3]Includes short-term and long-term marketable securities.
[4]Includes trade credit and advances and other items due to be received or paid (such as taxes, dividends, rent, wages and salaries, and social contributions).

As for other balance sheet aggregates, "Cash" covers holdings of currency and deposits as well as debt securities, the amount of which reflects the NFCs' preference for holding liquid and safe assets. "Debt" covers debt securities and loans on the liability side. It should be noted here that, since we use non-consolidated data given the availability for a larger set of countries (Data Appendix), debt includes intercompany loans within the NFC sector, suggesting an overestimation of true indebtedness of the sector as a whole. An analysis of the role of intercompany financial transactions and positions, while potentially useful where data are available, is not within the scope of this paper.

B. Changing Balance Sheet Conditions

In this sub-section, we present a set of indicators to assess the NFC sector's balance sheet conditions at the highest level of aggregation for the advanced economies in the sample.[9] These indicators are chosen to have a comprehensive view of the corporate financial balance sheets in terms of both stock-to-flow and stock-to-stock positions while taking into account market valuations of equity assets.

[8] This follows the Eurostat's presentation of nonfinancial corporations in the European sector accounts.

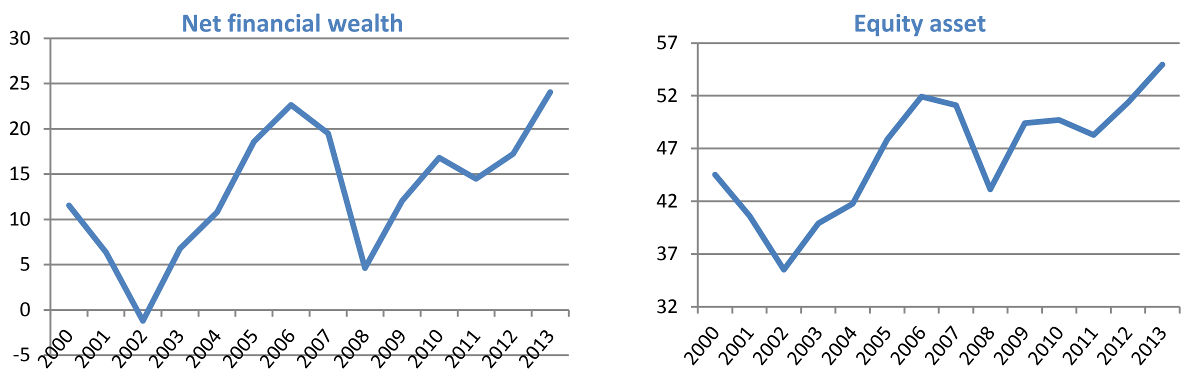
[9] Aggregated indicators are calculated by converting the amount in local currencies into a common currency (U.S. dollars) using purchasing power parities.

This is our "first look" in the sense that cross-country comparable SNA-based sectoral accounts and balance sheet data became available relatively recently. To the best of our knowledge, these data have not yet been investigated systematically. A question may be raised that NFC sector's balance sheet conditions vary significantly across countries, industrial sectors, and individual firms and such granularity would be masked in the aggregated indicators. The aim here is to show the data that have become available (and are expected to become increasingly available) and to suggest how these data could be used to shed light on relevant issues, complementing other more granular data. Based on the initial observations, we will leave some questions open for further analysis in future.

Fall and rise of financial wealth

The global financial crisis took a heavy toll on the NFC sector's NFW, mainly due to the valuation losses on equity assets (Figure 1). The equity asset-to-GDP ratio shows that the value of NFC sector's equity holding has been on the rise over time, indicating both increasing trends in corporations' share holdings and valuation effects. The equity asset-to-GDP ratio was above 45 percent in 2000, declined in the early 2000s due to the collapse of the so-called IT bubble. In the run-up to the global financial crisis, the equity asset-to-GDP ratio steadily increased, suggesting that cross-share holdings among corporations helped accelerate the positive effects on equity prices and so the value of these holdings on their balance sheets. The equity asset-to-GDP ratio has been recovering following a sharp decline during the crisis.

Figure 1. Selected Advanced Economies: Net Financial Wealth and Equity Asset, 2000–13 (Percent of GDP)



Source: Authors' calculation from OECD data.

NFW equivalent to about 15 percent of total GDP of the 20 advanced economies was lost in 2008 (Table 2). Clearly, equity securities held by nonfinancial corporations lost value as stock prices tumbled. There were also write-offs of loans and debt securities held by NFCs. "Other economic flows (OEFs)" reflecting these factors accounted for a loss of NFW amounting to about 11 percent of total GDP.

Table 2. Selected Advanced Economies: Changes in Net Financial Wealth, 2008–13

	2008	2009–13
	(Percent of total GDP)	
Changes in net financial wealth	-14.9	19.5
Transactions	-3.8	7.4
Other economic flows	-11.1	12.1

Sources: Authors' calculations from OECD data.

The negative change in NFW in 2008 attributable to transactions, amounting to 3.8 percent of total GDP, suggests two possibilities: NFCs either liquidated their financial assets or resorted to new financing. It appears that the new financing was hard to come by in the case of the U.S. where NFCs undertook a large drawing down of currency and deposits (Appendix Table 6). In such cases, global liquidity shortages in the financial markets during the crisis had a significant impact on their financial behavior.

It took the following five years (2009–13) for the NFC sector to recover the loss of NFW. The recovery of asset prices since the crisis helped boost NFW through OEFs. This is captured by the positive contributions from OEFs which contain both other volume changes and valuation effects (such as holding gains on financial assets). The data used for our analysis do not allow us to distinguish the pure valuation effects from other volume changes, but it is likely that the positive contributions from OEFs are mostly due to holding gains on equity and investment fund shares.

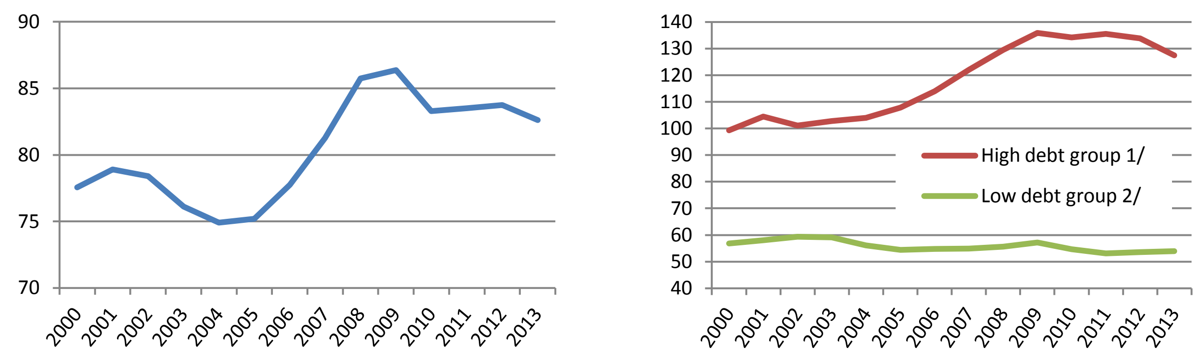
In this recovery process, the accumulation of NFW through transactions (acquisition of financial assets and incurrence of financial liabilities) contributed significantly, accounting for almost two-fifths of the total increase in NFW. This means that NFCs made significant efforts to restore NFW by generating surpluses of savings in excess of investment. An interesting question, one that could have important implications for considering real-financial linkages of the NFCs’ financial behavior, is how they allocated financial surpluses: whether to reduce financial liabilities or to accumulate financial assets.

Slow pace of corporate debt reduction

Despite the recovery in NFW, high corporate debt levels remain a source of concern in the balance sheet conditions in many advanced economies. This has resulted from a rapid buildup of debt in the run-up to and during the global financial crisis, with the corporate debt-to-GDP ratio of the 20 advanced economies reaching a high of 86.4 percent of GDP in 2009 (Figure 2, left panel). The trend has been reversed since, but the reduction in the corporate debt-to-GDP ratio has been slow, having declined to 82.6 percent of GDP by end-2013 and remained above the pre-crisis level.

Behind this aggregate trend, we observe significant divergence between countries with high corporate debt levels and those with low levels (Figure 2, right panel). The countries whose corporate debt-to-GDP ratios were relatively high before the global financial crisis experienced a sharp rise in debt levels during the crisis, and these countries have seen little debt reduction. In contract, the countries whose corporate debt-to-GDP ratios were relatively low before the crisis have maintained or even reduced debt levels over the years.

Figure 2. Selected Advanced Economies: Corporate Debt, 2000–13
(Percent of GDP)



Source: Authors' calculation from OECD data.
1/ Includes Belgium, Netherlands, Portugal, Spain, and Sweden.
2/ Includes Czech Republic, Germany, and Slovak Republic.

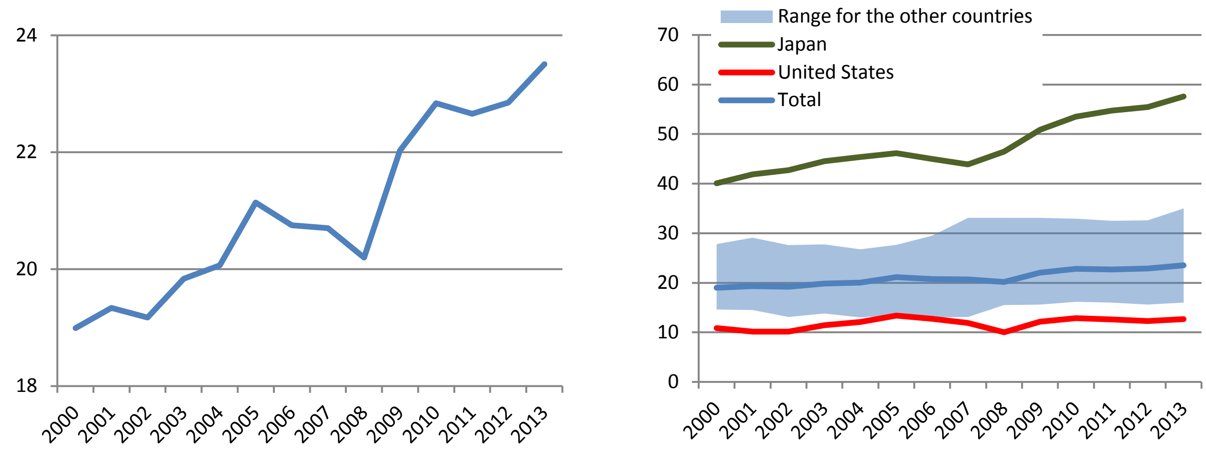
An empirical study shows that high corporate debt above certain levels (defined in percent of GDP) becomes a drag on growth (Cecchetti, Mohanty, and Zampolli, 2011). Although this is plausible, growth in some of the advanced economies in the high debt group, particularly Belgium, Netherlands, and Sweden, does not appear being affected much by such debt hangover effects. This suggests that the effects of corporate debt on investment and growth would require taking into account country specific factors.

Rising corporate cash relative to GDP

Increasing corporate cash holdings explain part of the recovery in NFW after the crisis. The NFC sector of the 20 advanced economies as a whole has been accumulating cash since the beginning of the 2000s and at an accelerating pace after the crisis: the cash-to-GDP ratio rose from 19 percent in 2000 to over 23 percent in 2013 (Figure 3, left panel).

Cash holdings by the U.S. NFC sector relative to GDP is significantly lower than the average for the advanced economies (Figure 3, right panel). Interestingly, recent studies examine if U.S. corporations are holding too much cash (Hodrick, 2013; Sanchez and Yurdagul, 2013), and another study examines the role of cash as a buffer against financial shocks, especially for corporations with high debt levels (Armentar, 2012). If it is indeed the case that the U.S. corporations are holding too much cash, the issue would be worth examining for most advanced economies in the sample.

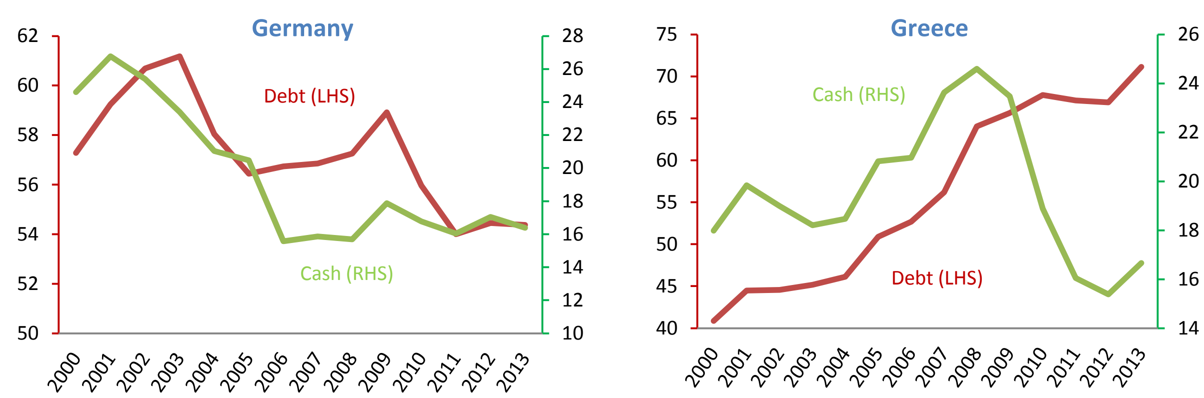
Figure 3. Selected Advanced Economies: Corporate Cash, 2000–13
(Percent of GDP)



Source: Authors' calculation from OECD data.

It is also worth highlighting that some of the advanced economies experienced a decline in the corporate cash-to-GDP ratio: Germany for 2001–06 and Greece for 2008–12 (Figure 4). A study for Germany indicates that the tax reform in 2001 favored internal financing to external financing, which could justify the reduction in both the debt- and cash-to-GDP ratios (Ruscher and Wolff, 2013). In the case of Greece, a relevant issue would be whether corporate cash holdings were affected by the weakness of the economy and the banking sector after the financial crisis in the euro area. Developments in the corporate debt- and corporate cash-to-GDP ratios seem to suggest that the Greek NFC sector used cash holdings to cope with the real and financial shocks. The cause and effects of the decline in corporate cash holdings in Greece would deserve a further examination.

Figure 4. Germany and Greece: Corporate Debt and Cash, 2000–13
(Percent of GDP)

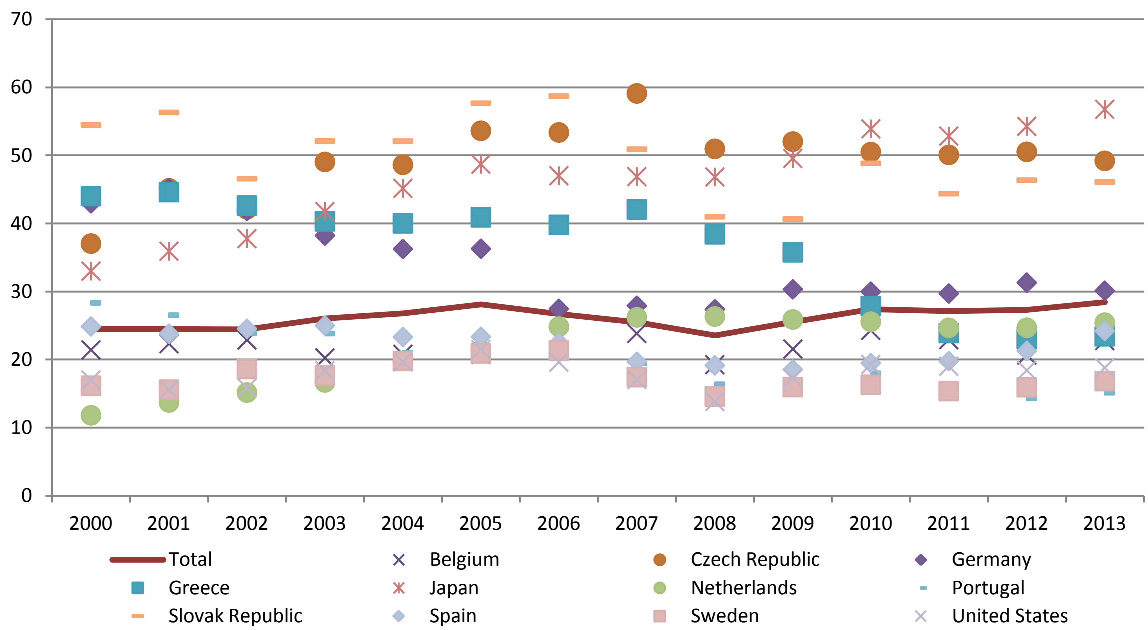


Source: Authors' calculation from OECD data.

Stable relations between corporate cash and debt

Looking at the corporate cash-to-debt ratio, it is noticeable that the ratio is relatively stable not only for the total but also for a large number of countries in the sample (Figure 5). This observation gives rise to a question: whether corporate cash and corporate debt move independently or not. Two explanations could be suggested to explain the possible co-movements. One explanation would be that NFCs are willing to hold cash as a liquidity buffer to cope with vulnerability arising from higher debt levels. Another explanation would be that NFCs are willing to use excess cash to reduce debt. Aggregate data are not suitable to address this question as they may not reflect the movement in cash and debt of individual NFCs, and examining the issue using firm-level data would be an interesting topic for further analysis.

Figure 5. Selected Advanced Economies: Corporate Cash-to-Debt, 2000–13
(Percent)



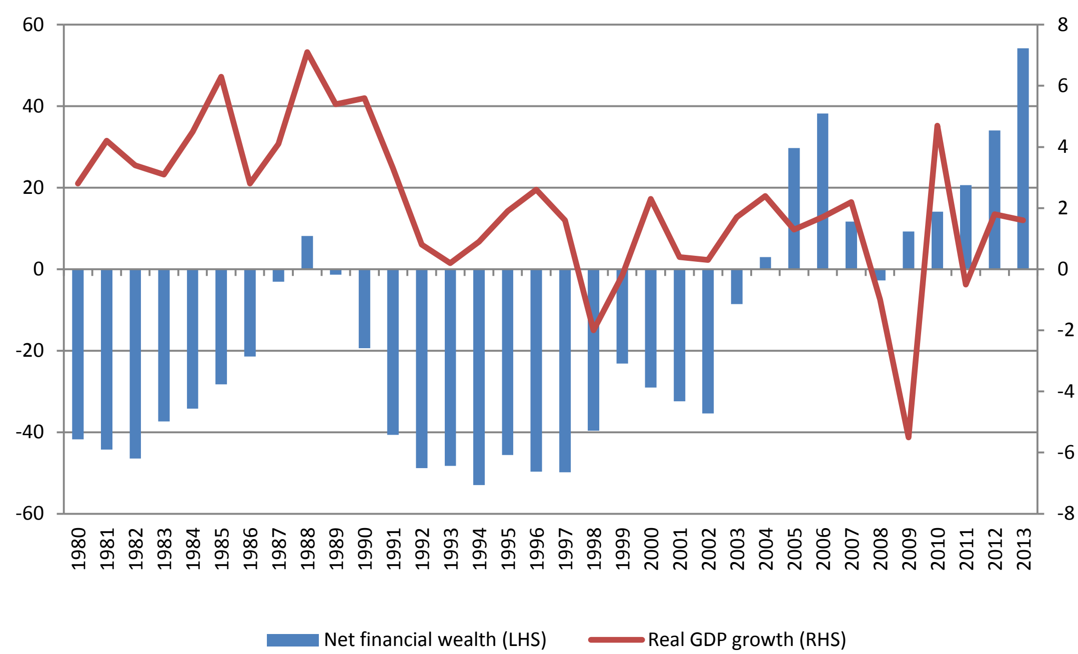
Source: Authors' calculation from OECD data.

III. Corporate Balance Sheet Adjustments in Japan: A Deeper look

Rising corporate financial wealth under a stagnant economy

In the two decades of growth slump and deflationary era since the early 1990s, Japan's NFC sector has been accumulating financial wealth, turning itself from negative NFW to positive NFW by the mid-2000s (Figure 6). At the first look, this may seem contradictory, but the improvement in financial balance sheet position reflects the response of the sector to prolonged slow growth and lack of profitable investment opportunities. A significantly positive NFW may be seen as indicating a low level of balance sheet vulnerabilities; however, the composition of balance sheets is an important factor, and a high corporate debt-to-GDP ratio in Japan compared with other advanced economies means that vulnerabilities within sector would need to be assessed carefully, possibly with more granular (firm-level) data.

Figure 6. Japan: Net Financial Wealth of the Nonfinancial Corporations Sector, 1980–2013



Source: Authors' calculation from OECD data.

During the 1990s, the Japanese economy experienced a significant deceleration in growth (early 1990s), a surge in the value of yen (mid 1990s), low inflation as well as deflation, and a financial crisis in 1997 involving bankruptcies of a major bank and security firms. As could be expected, NFCs were severely affected by these developments, with some having become a source of systemic banking sector weaknesses by generating nonperforming loans.

A significant improvement in the NFC sector's financial balance sheets took place in the 2000s. The first half of this period corresponds to the government of Prime Minister Koizumi which pressed for broad structural and fiscal reforms and a resolution of nonperforming loans in the banking system. Indeed, the NFC sector reduced debt liabilities sharply in 2000–03 through transactions, which resulted in the sector's move into a net asset position (Table 3). In the following four years (2004–07), while the NFC sector further strengthened its balance sheets, the composition of adjustments shifted noticeably from debt reduction to financial asset accumulation.

Table 3. Japan: Changes in Net Financial Wealth of the Nonfinancial Corporation Sector

	2000–03[1]	2004–07[1]	2008	2009-13[1]
		(Percent of GDP)		
Changes in net financial wealth	14.5	20.3	-14.5	57.0
Transactions	22.8	16.0	3.5	24.2
Financial assets	0.3	16.6	-3.7	29.1
Of which : cash[2]	4.8	0.8	1.7	8.4
Financial liabilities[3]	-22.5	0.6	-7.2	4.9
Of which : debt[4]	-18.3	-4.7	3.1	-3.7
Other economic flows	-8.2	4.3	-18.0	32.8
Financial assets	-0.6	-3.2	-15.2	36.3
Of which : equity asset	-4.3	-0.7	-11.0	27.3
Financial liabilities[3]	7.7	-7.5	2.8	3.5

Source: Authors' calculations from OECD data.

[1]Cumulative.

[2]Includes "Currency and deposits" and "Debt securities".

[3]Excluding equity liabilities.

[4]Includes "Debt securities" and "Loans".

Then the global financial crisis of 2008 hit the Japanese economy. Although it was not the epicenter of the crisis, the recession that followed was one of the deepest among advanced economies with real GDP contracting by 1.0 percent in 2008 and 5.5 percent in 2009. The NFC sector in 2008 lost as much as 18 percent of GDP on OEFs of financial assets, which mostly reflect the valuation losses of equity held by Japanese corporations.

In the following years, Japanese NFCs have sought to repair their balance sheets. The composition of balance sheet adjustments in response to the crisis is similar to the period preceding it in that they relied more on financial asset accumulation and less on liability reduction. A noticeable difference between 2004–07 and 2009–13 is that OEFs on financial assets accounted for a significant part of the improvement in NFW in the latter period, reflecting the recovery of the equity values.

Shifting adjustments from debt reduction to financial asset accumulation

Looking at the more granular level of composition by instruments, the adjustment shifted from reducing liability by debt reduction (2000–03) to accumulating financial assets other than cash (2004–07). After the global financial crisis, the adjustment took place with the accumulation of financial assets (2009–13).

Japan’s experience could have implications for countries undergoing corporate balance sheet adjustments. It suggests that the strengthening process may not be over even when corporate debt levels are reduced significantly. It also raises an important issue of how different approaches to strengthening the balance sheet—whether these take place on the liability side or the asset side—impact the economy. While these issues are outside the scope of the present study, the dataset—containing comparable data across a number of advanced economies—combined with other indicators would make it possible to shed light on these issues.

The impact of fluctuating asset values on corporate real and financial behavior

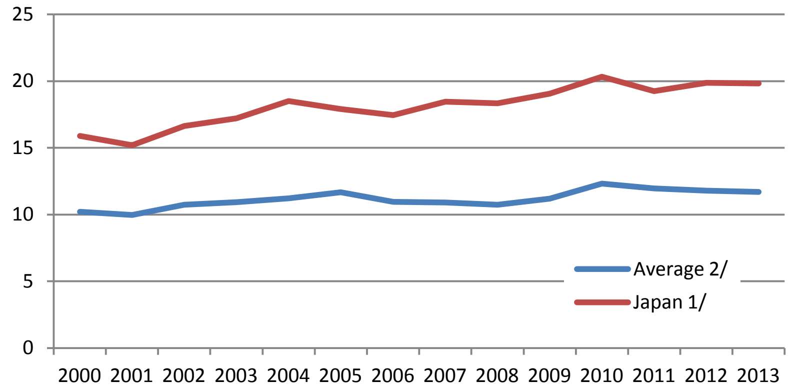
Looking at the further breakdown by instruments for other economic flows on the financial assets side, it is clear that the fall and the recovery of stock prices in Japan was the main driving factor in strengthening balance sheets during and after the global financial crisis. We also notice that OEFs other than equity asset values were significant especially during 2009–13, which may arise from valuation changes in trade credit or offshore assets due to currency fluctuations. Although such detailed information is not available in the data used for this paper, country sources could possibly contain such information.

Another policy relevant issue that would be worth pursuing by taking advantage of the sectoral account and balance sheet data is whether and to what extent changes in NFW due to fluctuations in asset values affect the real and financial behavior of nonfinancial corporations.

High and rising propensity for corporations to save

In the previous section, we noted that the NFC sector in Japan is a clear outlier among the sample group of countries in terms of its high levels of cash accumulation which is clearly linked to high and rising propensity for Japanese NFCs to save (Figure 7). Some argue that excessively high corporate savings in Japan are hurting the economy (“A US$2.5 trillion problem,” *Economist*, September 27, 2014; Andrew Smithers, “Japan must cut depreciation allowances, *Financial Times*, March 27, 2014). Recent analyses by IMF staff concludes that: cash accumulation is due to financial imperfections, rising corporate profitability, and uncertainty (Sher, 2014); weak corporate governance might be contributing to high cash holdings (Aoyagi and Ganelli, 2014); and recent corporate governance reforms are expected to unlock the cash position (IMF, 2015). A recent policy debate has focused on strengthening incentives for the Japanese NFC sector to reduce savings by raising wages and dividend payments and to reduce cash holdings by increasing fixed capital formation. In this regard, cash holdings (stock) and savings (flow) by the NFC sector in other advanced economies, although lower than in Japan, could be highlighted as a policy issue in the context of corporate sector balance sheet adjustments.

Figure 7. Selected Advanced Economies: Gross Saving of the Nonfinancial Corporation Sector, 2000–13 (Percent of GDP)



Source: Author's calculations from OECD data.
1/ Japan is the maximum among all the countries in the sample.
2/ Weighted average for the 20 countries in the sample.

IV. Conclusions

In this paper, we have examined stock-flow consistent cross-country comparable aggregate balance sheet data for the NFC sector in selected advanced economies. We have highlighted the key features of ongoing corporate balance sheet adjustments by taking a comprehensive look at flow and stock data, including both the asset and liability sides of financial balance sheets. In our sample of 20 advanced economies, corporate debt in percent of GDP has been slow to adjust since the global financial crisis. The NFC sector's NFW to GDP ratio has improved recently, particularly reflecting an accumulation of corporate cash and valuation gains on financial assets. Developments in individual countries differ significantly with some of the countries making progress in strengthening balance sheets and others facing continued pressures for debt reduction. Japan's experience highlights the possibility that strengthening balance sheets could continue even after debt levels are reduced.

There are several areas which warrant a deeper look with more granular data, including by financial instrument, given the role of the NFC sector in determining business conditions, driving economic growth and employment and affecting financial stability. It is hoped that our work will help promote further compilation and dissemination as well as more and better use of SNA-based sectoral balance sheet data and associated financial account data.

REFERENCES

Aoyagi, Chie and Giovanni Ganelli, 2014, "Unstash the Cash! Corporate Governance Reform in Japan," *IMF Working Paper,* WP/14/140.

Armenter, Roc, 2012, "The Rise of Corporate Savings," *Federal Reserve Bank of Philadelphia Business Review,* Third Quarter, pp.1–8.

Bakker, Bas B., and Li Zeng, 2013, "Dismal Employment Growth in EU Countries: The Role of Corporate Balance Sheet Repair and Dual Labor Markets," *IMF Working Paper*, WP/13/179.

Cecchetti, Stephen G., Madhusudan Mohanty, and Fabrizio Zampolli, 2011, "The Real Effects of Debt," *BIS Working Papers*, No. 352.

European Central Bank, 2012, "Corporate Indebtedness in the Euro Area," *ECB Monthly Bulletin*, February, pp.87–103.

European Central Bank, 2014, "Deleveraging Patterns in the Euro Area Corporate Sector," *ECB Monthly Bulletin*, February, pp.97–114.

European Commission, 2010, "Balance Sheet Adjustment in the Corporate Sector," *Quarterly Report on the Euro Area*, Volume 9, Issue 3, October, pp.9–16.

European Commission, 2014, "Corporate Balance Sheet Adjustment in the Euro Area and the United States," *Quarterly Report on the Euro Area*, Volume 13, Issue 1, April, pp.40–46.

Eurostat, 2014, *European Sector Accounts*.
(available on website: http://ec.europa.eu/eurostat/web/sector-accounts)

Heath, Robert, 2013, "Why are the G-20 Data Gaps Initiative and the SDDS Plus Relevant for Financial Stability Analysis?" *IMF Working Paper*, WP/13/06.

Hodrick, Laurie Simon, 2013, "Are U.S. Firms Really Holding Too Much Cash?" *Stanford Institute for Economic Policy Research Policy Brief*, July.

International Monetary Fund, 2007, *The System of Macroeconomic Accounts Statistics: An Overview*.
(available on website: http://www.imf.org/external/pubs/ft/pam/pam56/pam56.pdf)

International Monetary Fund, 2015, "Japan: 2015 Article IV consultation," *IMF Country Report*, No. 15/197.

Jaeger, Albert, 2003, "Corporate balance sheet restructuring and investment in the euro area," *IMF Working Paper*, WP/03/117.

Ruscher, Eric and Guntram B. Wolff, 2013, Corporate Balance Sheet Adjustment: Stylized Facts, Causes and Consequences, *Review of Economics*, Vol. 64, pp.117–138.

Sanchez, Juan and Emircan Yurdagul, 2013, "Why Are Corporations Holding So Much Cash?" Federal Reserve Bank of St. Louis, *The Regional Economist*, January, pp.5–8.

Sher, Galen, 2014, "Cashing in for Growth: Corporate Cash Holdings as an Opportunity for Investment and Growth in Japan," *IMF Working Paper*, WP/14/221.

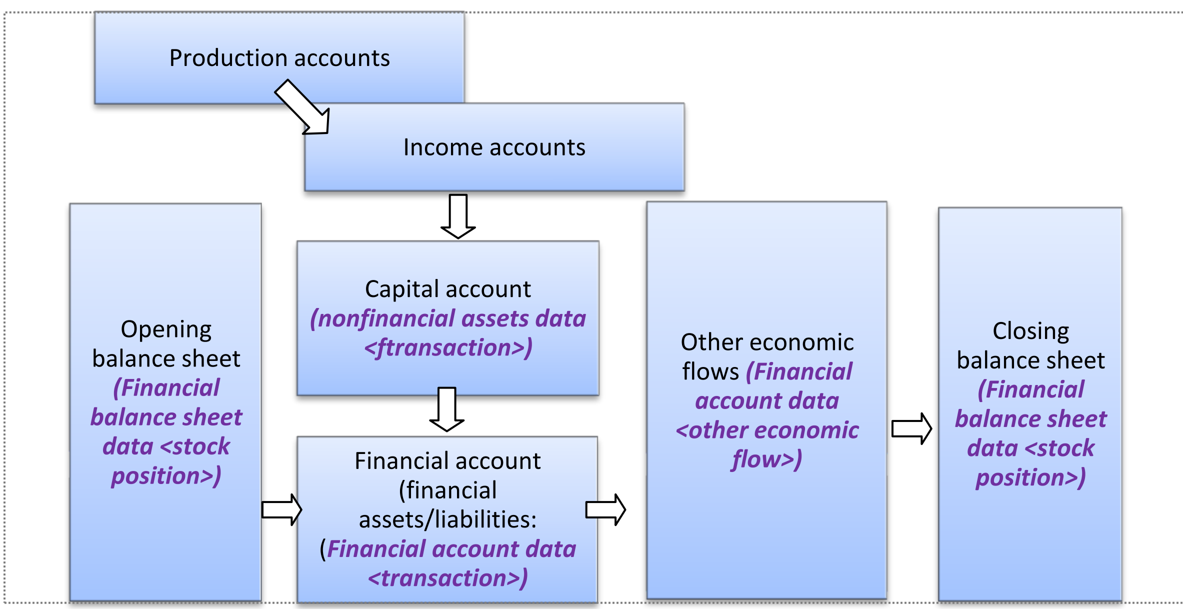
Data Appendix

Sectoral accounts and balance sheet in the System of National Accounts

The System of National Accounts (SNA) provides for a framework to compile sectoral accounts and sectoral balance sheet data which describe comprehensively and consistently the economic and financial behavior by entities.[1] Sectoral accounts data record, by institutional sectors, the production of goods and services, income generated and distributed through current transfers, and its allocation to consumption and saving.

Sectoral balance sheet data record accumulated financial transactions and other economic flows. At the economy level, the balance sheets data show the stock position of the domestic economy vis-à-vis the rest of the world. The balance sheet data are often available by economic sectors, enabling an analysis of financial stock positions and flows (transactions and other economic flows) of each sector. The financial balance sheets data are also called "sectoral balance sheet" data as they provide stock positions of assets and liabilities for each of economic sector.

Appendix Figure 1. The SNA Framework and Balance Sheet Data[1]



[1] For a concise description of the key principles underlying the SNA, see International Monetary Fund (2007), The System of Macroeconomic Accounts Statistics: An Overview, Chapter II.

[1] See *System of National Accounts 2008* (*SNA2008*), Chapter 1, Section B.3 for an overview of accounts and their corresponding economic activities and Chapter 13 for a detailed exposition of the balance sheet.

The financial accounts and financial balance sheets data, coupled with non-financial accounts data, enable us to trace economic flows over time. The net lending/borrowing represents the financial transactions during the reference period. Other financial flows that are not captured by financial transactions are called "other economic flows (OEFs)" (see below). These flows may include valuation changes in assets/liabilities held due to holding gains or other changes in volume. The financial transactions and other economic flows constitute change in the stock of financial assets and liabilities from the beginning to the end of the period.

As shown in Appendix Figure 1 above, the framework is designed in such a way that "The balance sheets shows the stock of assets and liabilities at the beginning and end of each period and are fully integrated with the transactions and other economic flows for those assets and liabilities." (IMF, 2007, page 19). The sectoral breakdowns are provided according to the common institutional classification. To the extent countries compile and report data using the common framework, data are expected to be fully comparable.

Financial balance sheet data can be further disaggregated by instruments. The main instrument breakdowns are illustrated in the table below.

Appendix Table 1. Sectoral Balance Sheet Data Required under SDDS Plus

Minimum Classifications for Sectors and Financial Instruments for Internationally Comparable Sectoral Accounts

Minimum classification of institutional sectors / Financial Instruments	Nonfinancial corporations S11	Financial corporations S12: Central bank S121	Other deposit-taking corporations S122	Money market funds S123	Insurance corporations and pension funds S128+S129	Other financial corporations (OFCs) S124+S125+S126+S127	General government S13	Households and nonprofit institutions serving households (NPISHs) S14+S15	Rest of the world S2
Assets									
F1 Monetary gold and SDRs									
F2 Currency and deposits									
F3 Debt securities									
F4 Loans									
F5 Equity and investment fund shares									
F6 Insurance, pensions, and standardized guarantee schemes									
F7 Financial derivatives and employee stock options									
F8 Other accounts receivable/payable									
Liabilities									
F1 Monetary gold and SDRs									
F2 Currency and deposits									
F3 Debt securities									
F4 Loans									
F5 Equity and investment fund shares									
F6 Insurance, pensions, and standardized guarantee schemes									
F7 Financial derivatives and employee stock options									
F8 Other accounts receivable/payable									

Source: The SDDS Plus Guide for Adherents and Users.

Data sources

Sectoral account and balance sheet data are compiled and disseminated by many advanced countries, often as part of flow of funds data. The OECD makes these data available for 33 countries on its online statistical database, OECD StatExtracts (Appendix Table 3).

For most countries, financial balance sheets (stock position data) and financial accounts (transaction data) are available on both non-consolidated and consolidated bases. Balance sheet figures from non-consolidated data sets are larger than those from consolidated data sets because holdings of financial instruments between institutional units in the same group are eliminated in consolidated data. As of June 2015, non-consolidated transaction and balance sheet data are available for 30 countries and consolidated data are available for 24 countries. Only non-consolidated data are available for some of the large advanced economies such as Canada, Japan and the Unites States. Given the larger data availability and the information contained in the non-consolidated financial accounts and balance sheets, we use the non-consolidated data for our analysis in the paper.

For the aggregated analysis in the paper, we used the non-consolidated data for 20 selected advanced economies for which comprehensive flow and stock indicators are available for 2000–13 (Appendix Table 2).

The data for selected balance sheet indicators are show on the Appendix Tables 4–8.

Appendix Table 2. Countries Included in the Aggregate Analysis of Selected Advanced Economies

United States	
Japan	
Euro area (11)	Austria, Belgium, Finland, France, Germany, Greece, Italy, Netherlands, Portugal, Slovak Republic, Spain,
Others (7)	Canada, Czech Republic, Denmark, Hungary, Norway, Sweden, U.K.

Appendix Table 3. Summary of Available Balance Sheet and Financial Account Data for the Nonfinancial Corporation Sector[1]

	Consolidated		Non-consolidated	
	Balance sheet	Transactions	Balance sheet	Transactions
Australia	1989–2014	1989–2014	NA	NA
Austria	1995–2014	1996–2014	1995–2014	1996–2014
Belgium	1995–2014	1995–2014	1995–2014	1995–2014
Canada[2]	NA	NA	1970–2013	1970–2013
Chile[2]	NA	NA	2005–2014	2005–2014
Czech Republic	1995–2013	1995–2013	1995–2013	1995–2013
Denmark	1994–2013	1995–2013	1994–2013	1995–2013
Estonia	2008–2013	2008–2013	2008–2013	2008–2013
Finland	1995–2013	1995–2013	1995–2013	1995–2013
France	1995–2013	1996–2013	1995–2013	1996–2013
Germany	1995–2013	1995–2013	1995–2013	1995–2013
Greece	1995–2013	1995–2013	1995–2013	1995–2013
Hungary	1990–2014	1990–2014	1990–2014	1990–2014
Iceland	2003–2013	2004–2013	2003–2013	2004–2013
Ireland	2001–2013	2002–2013	2001–2013	2002–2013
Israel	2001–2013	NA	2010–2013	NA
Italy	1995–2013	1995–2013	1995–2013	1995–2013
Japan[2]	NA	NA	1980–2013	1980–2013
Korea	NA	NA	2011–2014	2012–2014
Luxembourg	2008–2013	2008–2013	2008–2013	2008–2013
Mexico	1997–2009	1997–2009	2003–2013	2003–2013
Netherlands	1995–2013	1995–2013	1995–2013	1995–2013
Norway	1995–2014	1996–2014	1995–2014	1996–2014
Poland	2003–2013	2004–2013	2003–2013	2004–2013
Portugal	1995–2014	1995–2014	1995–2014	1995–2014
Slovak Republic	1995–2013	1995–2013	1995–2013	1995–2013
Slovenia	2001–2014	2002–2014	2001–2014	2002–2014
Spain	1995–2014	1995–2014	1995–2014	1995–2014
Sweden	1995–2014	1995–2014	1995–2014	1995-2014
Switzerland	NA	NA	1999–2012	2000–2012
Turkey[2]	NA	NA	2009–2013	NA
United Kingdom	1997–2014	NA	1997–2014	1997–2014
United States	NA	NA	1970–2014	1970–2014

[1]Availability as of June 29, 2015.
[2]Countries for which only *1993SNA* data are available.

Appendix Table 4. Selected Advanced Economies: Financial Balance Sheet of the Nonfinancial Corporation Sector, 2000-13[1]

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
(Billions of U.S. dollars converted using PPPs)														
Assets	32965	33235	32636	34746	37612	42609	47777	50566	47844	49901	52243	53830	55832	59219
Monetay gold and SDRs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Currency and deposits	3714	3931	4028	4429	4878	5462	5878	6253	6254	6707	7113	7311	7674	8198
Debt securities	983	1047	1080	1050	986	1059	958	918	931	932	1087	1123	1052	997
Loans	2588	2925	3100	3156	3385	3474	3837	4187	4860	4764	5039	5352	5358	5282
Equity and investment fund shares	11012	10457	9461	11023	12202	14765	17108	17708	15343	17135	17847	17969	19621	21489
Insurance, pensions, and standardized guarantee schemes	470	478	493	532	574	627	665	684	650	651	687	682	719	695
Financial derivatives and employee stock options	67	53	35	32	52	77	105	116	165	102	102	93	95	86
Other accounts receivable/payable	14130	14345	14440	14523	15535	17146	19228	20699	19642	19609	20369	21299	21312	22472
Liabilities	67766	66301	63041	69209	75360	84565	94642	99356	87585	91388	96075	97903	103954	114230
Monetay gold and SDRs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Currency and deposits	1	1	0	0	0	0	0	31	33	36	36	36	40	42
Debt securities	4732	5049	5154	5160	5228	5112	5371	5609	5915	6400	6669	6947	7593	8003
Loans	14454	15265	15729	15869	16662	18084	20248	22544	24583	23558	23229	24133	24384	24313
Equity and investment fund shares	37661	34698	30081	36329	40904	47688	54331	55550	41377	45664	49865	49465	54699	64422
Insurance, pensions, and standardized guarantee schemes	666	1045	1541	1148	1203	1112	1055	1120	2017	1706	1623	2080	1940	1395
Financial derivatives and employee stock options	49	57	53	54	89	104	98	122	237	167	168	224	234	199
Other accounts receivable/payable	10204	10187	10482	10649	11274	12465	13539	14380	13423	13858	14484	15018	15064	15857
(Percent of aggregate GDP)														
Assets	133.3	129.1	122.5	125.8	128.7	138.1	145.0	145.9	134.5	143.9	145.5	144.6	146.2	151.4
Monetay gold and SDRs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Currency and deposits	15.0	15.3	15.1	16.0	16.7	17.7	17.8	18.0	17.6	19.3	19.8	19.6	20.1	21.0
Debt securities	4.0	4.1	4.1	3.8	3.4	3.4	2.9	2.6	2.6	2.7	3.0	3.0	2.8	2.5
Loans	10.5	11.4	11.6	11.4	11.6	11.3	11.6	12.1	13.7	13.7	14.0	14.4	14.0	13.5
Equity and investment fund shares	44.5	40.6	35.5	39.9	41.7	47.9	51.9	51.1	43.1	49.4	49.7	48.3	51.4	54.9
Insurance, pensions, and standardized guarantee schemes	1.9	1.9	1.8	1.9	2.0	2.0	2.0	2.0	1.8	1.9	1.9	1.8	1.9	1.8
Financial derivatives and employee stock options	0.3	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.5	0.3	0.3	0.2	0.2	0.2
Other accounts receivable/payable	57.1	55.7	54.2	52.6	53.2	55.6	58.4	59.7	55.2	56.5	56.7	57.2	55.8	57.5
Liabilities	273.9	257.5	236.6	250.5	257.9	274.1	287.2	286.8	246.2	263.5	267.6	263.0	272.2	292.0
Monetay gold and SDRs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Currency and deposits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Debt securities	19.1	19.6	19.3	18.7	17.9	16.6	16.3	16.2	16.6	18.5	18.6	18.7	19.9	20.5
Loans	58.4	59.3	59.0	57.4	57.0	58.6	61.5	65.1	69.1	67.9	64.7	64.8	63.9	62.2
Equity and investment fund shares	152.2	134.8	112.9	131.5	140.0	154.6	164.9	160.3	116.3	131.7	138.9	132.9	143.2	164.7
Insurance, pensions, and standardized guarantee schemes	2.7	4.1	5.8	4.2	4.1	3.6	3.2	3.2	5.7	4.9	4.5	5.6	5.1	3.6
Financial derivatives and employee stock options	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.7	0.5	0.5	0.6	0.6	0.5
Other accounts receivable/payable	41.2	39.6	39.3	38.5	38.6	40.4	41.1	41.5	37.7	40.0	40.3	40.3	39.4	40.5
Memorandum items:														
(Billions of U.S. dollars converted using PPPs)														
Nominal GDP	24737	25748	26640	27629	29226	30849	32948	34646	35569	34684	35898	37222	38185	39114
United States	10285	10622	10978	11511	12275	13094	13856	14478	14719	14419	14964	15518	16163	16768
Japan	3289	3370	3466	3563	3759	3876	4053	4275	4284	4097	4307	4405	4525	4617
Euro area (11)	7787	8212	8503	8691	9063	9508	10331	10983	11497	11255	11601	12071	12131	12222
Others (7)	3376	3544	3693	3864	4129	4371	4708	4910	5069	4914	5026	5228	5366	5507

Source: Authors' estimates from OECD StatExtracts data.

S [1]Total for 20 advanced economies for which data are available for the whole period covered on the table. Locan currency data are coverted to U.S. dollars using purchacing power parities.

Appendix Table 5. Selected Advanced Economies: Debt Ratios of the Nonfinancial Corporation Sector, 2000-14

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Corporate debt-to-GDP															
								(Percent of GDP)							
Total	77.6	78.9	78.4	76.1	74.9	75.2	77.8	81.3	85.7	86.4	83.3	83.5	83.7	82.6	...
Austria	87.6	89.1	87.8	90.1	86.9	83.3	85.1	92.0	93.8	89.6	91.8	93.0	91.9	89.6	...
Belgium	105.1	112.8	109.5	116.0	117.7	113.6	112.8	121.4	141.1	148.0	135.4	143.0	147.4	140.5	145.7
Canada	88.4	93.1	94.9	90.0	89.1	83.2	85.5	88.7	96.1	98.5	95.4	94.8	96.9	99.8	...
Czech Republic	54.8	48.3	47.4	41.3	39.4	37.3	38.8	38.6	42.1	42.5	43.7	44.6	46.2	51.2	...
Denmark	73.4	79.9	74.7	75.1	75.0	76.2	90.1	93.2	100.9	98.6	95.0	94.8	98.4	97.2	...
Finland	90.3	85.5	85.0	87.4	87.6	87.4	90.0	93.3	102.8	105.4	108.5	107.7	107.2	105.3	...
France	97.8	102.2	101.5	99.6	100.0	101.2	102.8	104.0	108.8	112.6	111.7	116.8	120.1	119.6	...
Germany	57.3	59.2	60.7	61.2	58.0	56.4	56.7	56.9	57.3	58.9	56.0	54.0	54.5	54.4	...
Greece	40.9	44.5	44.6	45.2	46.1	50.9	52.7	56.2	64.0	65.6	67.8	67.1	66.9	71.1	...
Hungary	53.1	54.0	50.3	58.4	59.7	67.2	70.4	80.3	84.3	100.1	96.1	97.5	94.1	90.5	87.0
Italy	55.8	58.3	59.7	61.6	63.2	65.8	69.4	74.9	77.6	80.2	80.3	78.5	79.7	78.1	...
Japan	121.4	116.6	113.1	106.6	100.5	94.8	95.7	93.5	99.2	102.7	99.4	103.6	102.2	101.4	...
Netherlands	128.9	126.0	122.4	122.4	116.1	116.1	113.6	112.4	112.3	124.2	125.1	126.9	128.7	129.0	...
Norway	96.2	98.9	103.2	101.6	105.5	103.2	103.6	117.4	130.5	131.3	132.1	125.2	122.0	123.3	126.6
Portugal	82.5	89.2	95.3	101.2	108.4	107.0	103.7	109.9	119.2	124.9	125.2	129.3	136.8	134.5	126.2
Slovak Republic	43.3	42.2	46.2	40.5	39.3	37.4	38.9	43.6	45.6	47.9	45.5	47.6	46.4	48.0	...
Spain	73.3	80.8	83.6	86.1	91.2	100.0	115.5	125.0	128.3	131.3	133.4	131.6	124.0	112.1	...
Sweden	134.9	148.4	118.3	113.9	111.1	116.6	117.9	137.6	163.1	172.9	159.9	162.0	162.6	161.5	165.7
United Kingdom	74.6	79.7	83.4	77.9	76.6	84.5	86.9	87.8	98.8	96.8	89.9	88.0	89.8	80.3	75.7
United States	64.0	65.0	64.3	62.1	61.6	62.4	64.9	69.8	72.6	70.3	66.6	66.1	66.8	67.4	68.7
Corporate debt-to-equity liability															
								(Percent)							
Total	50.9	58.5	69.4	57.9	53.5	48.6	47.2	50.7	73.7	65.6	60.0	62.8	58.5	50.2	...
Austria	156.7	158.1	145.8	144.5	127.7	103.3	91.6	95.1	124.8	100.9	99.8	106.9	102.7	97.8	...
Belgium	66.6	71.2	73.5	74.4	73.1	69.3	60.1	63.4	72.5	69.5	59.7	63.9	62.7	58.3	61.2
Canada	72.6	71.9	86.2	67.2	61.4	49.7	49.0	47.5	76.1	59.8	54.3	62.7	62.8	68.5	...
Czech Republic	59.5	55.4	50.5	37.2	35.4	33.3	35.6	34.5	40.8	39.8	41.4	43.8	45.6	52.5	...
Denmark	76.8	89.3	100.2	92.7	76.6	49.1	55.9	58.5	101.4	77.3	66.6	76.0	65.4	53.2	...
Finland	32.1	43.0	57.9	59.5	61.8	53.4	51.7	50.1	89.5	78.1	71.4	89.8	85.9	76.4	...
France	41.4	56.3	64.0	56.5	53.4	49.1	42.3	40.4	67.4	59.1	55.7	64.6	60.8	53.5	...
Germany	64.8	71.2	104.1	90.6	83.4	74.5	68.8	63.9	88.5	81.1	71.2	78.7	70.5	63.0	...
Greece	38.4	59.2	84.3	78.1	74.7	65.2	66.6	66.9	212.5	177.7	209.6	238.9	155.2	105.8	...
Hungary	51.7	55.0	49.9	55.1	54.9	56.7	58.8	67.0	76.5	78.6	76.1	72.3	70.1	68.8	67.6
Italy	51.3	60.0	67.1	70.6	65.2	63.9	64.4	71.2	74.2	81.2	84.2	93.7	86.6	79.0	...
Japan	138.1	157.7	176.6	107.8	96.6	61.4	58.3	86.8	133.4	108.3	108.0	109.3	86.0	69.8	...
Netherlands	73.3	83.1	100.0	102.0	96.9	85.7	84.5	83.5	109.5	95.3	91.5	102.4	102.9	97.8	...
Norway	88.3	91.7	104.9	96.4	91.7	73.2	62.0	65.6	101.6	83.0	81.7	82.4	82.9	79.9	79.8
Portugal	72.1	90.9	105.1	99.9	97.1	93.8	82.2	82.7	106.6	101.1	98.0	108.7	111.9	104.4	103.6
Slovak Republic	53.5	54.0	62.7	55.1	56.8	49.0	52.9	65.2	71.7	67.5	62.4	67.3	62.6	66.4	...
Spain	55.0	60.6	70.8	63.7	64.3	63.4	65.5	71.2	97.7	94.8	100.9	97.0	90.9	69.6	...
Sweden	63.3	79.8	73.4	54.3	47.4	37.5	33.4	46.6	80.9	61.0	51.8	61.1	55.4	48.7	46.6
United Kingdom	38.9	50.0	70.4	61.1	58.7	59.0	58.9	59.5	88.8	72.6	63.2	67.9	67.3	54.9	56.1
United States	35.4	39.9	47.2	39.2	36.3	36.1	35.7	38.0	54.7	48.9	42.6	42.8	40.9	35.0	34.6

Source: Authors' estimates from OECD data.

Appendix Table 6. Selected Advanced Economies: Cash Ratios of the Nonfinancial Corporation Sector, 2000-14

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Cash-to-GDP															
								(Percent of GDP)							
Total	19.0	19.3	19.2	19.8	20.1	21.1	20.7	20.7	20.2	22.0	22.8	22.7	22.9	23.5	...
Austria	15.8	15.7	15.8	17.4	18.1	18.8	18.4	20.2	19.9	21.9	21.5	21.2	21.7	21.1	...
Belgium	22.5	25.2	25.1	23.5	24.4	23.6	26.0	28.9	27.2	31.9	32.9	32.8	30.5	32.0	29.1
Canada	20.5	22.1	22.5	23.0	24.3	27.3	29.2	32.7	33.5	29.9	30.9	31.8	31.3	35.2	...
Czech Republic	20.3	21.8	20.0	20.2	19.1	20.0	20.7	22.8	21.5	22.1	22.0	22.3	23.3	25.2	...
Denmark	23.6	21.0	20.9	19.3	16.2	25.6	21.2	21.5	24.5	27.9	27.8	25.3	27.5	24.2	...
Finland	17.5	16.1	15.7	14.2	13.7	14.1	13.1	13.9	15.1	16.8	19.3	17.4	16.7	16.6	...
France	14.9	15.0	12.9	13.9	13.9	15.8	16.2	17.7	17.8	18.4	20.2	22.3	23.1	24.4	...
Germany	24.6	26.8	25.4	23.4	21.0	20.5	15.6	15.9	15.7	17.9	16.8	16.0	17.0	16.4	...
Greece	18.0	19.8	19.0	18.2	18.5	20.8	21.0	23.6	24.6	23.5	18.9	16.0	15.4	16.7	...
Hungary	16.9	16.7	17.4	17.6	16.5	17.8	20.6	19.5	18.2	17.5	18.7	18.8	18.7	20.4	21.0
Italy	14.8	14.3	14.0	13.9	14.9	15.5	16.3	17.7	17.2	19.1	20.1	18.8	20.1	21.0	...
Japan	40.1	41.9	42.7	44.5	45.4	46.2	45.0	43.9	46.5	50.9	53.6	54.8	55.5	57.6	...
Netherlands	15.2	17.3	18.5	20.4	23.0	24.9	28.2	29.5	29.6	32.1	32.0	31.3	31.8	32.8	...
Norway	21.6	22.0	20.7	21.2	21.3	22.1	23.2	26.0	22.8	24.5	25.3	24.6	23.1	23.2	23.0
Portugal	23.4	23.7	22.8	24.1	22.8	22.9	22.4	21.4	19.5	20.4	22.5	19.6	19.6	20.4	21.3
Slovak Republic	23.6	23.8	21.5	21.1	20.5	21.6	22.8	22.2	18.7	19.5	22.2	21.1	21.5	22.1	...
Spain	18.2	19.2	20.5	21.5	21.3	23.3	25.9	24.6	24.6	24.3	26.0	26.0	26.4	27.1	...
Sweden	21.8	23.1	22.0	20.1	22.0	24.4	25.1	24.0	23.8	27.6	26.1	24.9	25.9	27.2	29.9
United Kingdom	27.2	28.5	27.6	27.8	26.5	27.6	29.6	30.1	31.0	32.4	32.9	31.8	32.8	32.6	35.9
United States	10.9	10.1	10.2	11.4	12.1	13.4	12.7	11.9	10.0	12.2	12.8	12.6	12.3	12.7	12.7
Cash-to-corporate debt															
								(Percent)							
Total	24.5	24.5	24.5	26.1	26.8	28.1	26.7	25.5	23.6	25.5	27.4	27.1	27.3	28.5	...
Austria	18.0	17.6	18.0	19.3	20.8	22.5	21.7	21.9	21.3	24.4	23.5	22.8	23.6	23.6	...
Belgium	21.4	22.3	22.9	20.3	20.8	20.8	23.1	23.8	19.3	21.5	24.3	22.9	20.7	22.8	20.0
Canada	23.1	23.7	23.7	25.6	27.3	32.8	34.2	36.9	34.8	30.4	32.4	33.5	32.3	35.3	...
Czech Republic	37.0	45.2	42.1	49.0	48.6	53.6	53.4	59.1	51.0	52.0	50.5	50.1	50.5	49.2	...
Denmark	32.2	26.2	28.0	25.7	21.6	33.6	23.6	23.0	24.3	28.3	29.3	26.7	27.9	24.9	...
Finland	19.3	18.8	18.5	16.2	15.7	16.2	14.6	14.9	14.7	16.0	17.8	16.2	15.6	15.7	...
France	15.2	14.6	12.7	14.0	13.9	15.6	15.8	17.1	16.3	16.4	18.0	19.1	19.2	20.4	...
Germany	43.0	45.2	41.8	38.2	36.2	36.3	27.5	27.9	27.4	30.3	30.0	29.7	31.3	30.1	...
Greece	44.0	44.6	42.6	40.3	40.0	40.9	39.8	42.1	38.4	35.8	27.9	23.9	23.0	23.4	...
Hungary	31.8	31.0	34.5	30.2	27.7	26.5	29.2	24.3	21.6	17.5	19.4	19.3	19.9	22.5	24.1
Italy	26.6	24.6	23.5	22.6	23.5	23.5	23.5	23.7	22.1	23.8	25.1	23.9	25.3	26.8	...
Japan	33.0	35.9	37.8	41.7	45.2	48.7	47.0	46.9	46.8	49.5	53.9	52.8	54.3	56.8	...
Netherlands	11.8	13.7	15.2	16.6	19.8	21.4	24.8	26.2	26.3	25.9	25.6	24.7	24.7	25.4	...
Norway	22.5	22.2	20.0	20.9	20.2	21.4	22.4	22.2	17.5	18.7	19.1	19.6	18.9	18.8	18.2
Portugal	28.3	26.5	23.9	23.8	21.0	21.4	21.6	19.4	16.4	16.3	18.0	15.2	14.3	15.1	16.9
Slovak Republic	54.5	56.3	46.6	52.1	52.1	57.7	58.7	50.9	41.0	40.6	48.8	44.4	46.4	46.1	...
Spain	24.9	23.8	24.5	25.0	23.3	23.3	22.5	19.7	19.1	18.5	19.5	19.8	21.3	24.2	...
Sweden	16.2	15.6	18.6	17.7	19.8	20.9	21.3	17.4	14.6	16.0	16.3	15.4	15.9	16.8	18.1
United Kingdom	36.5	35.8	33.1	35.8	34.6	32.7	34.1	34.2	31.4	33.5	36.6	36.1	36.5	40.6	47.4
United States	17.0	15.6	15.8	18.4	19.7	21.5	19.6	17.1	13.8	17.3	19.3	19.0	18.4	18.8	18.5

Source: Authors' estimates from OECD data.

Table 7a. Selected Advanced Economies: Equity Asset (EA) of the Nonfinancial Corporation Sector, 2000-14

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
EA-to-GDP															
							(Percent of GDP)								
Total	44.5	40.6	35.5	39.9	41.7	47.9	51.9	51.1	43.1	49.4	49.7	48.3	51.4	54.9	...
Austria	30.0	29.1	33.6	37.5	38.4	49.8	52.8	54.7	48.2	58.5	63.3	61.8	61.1	63.5	...
Belgium	109.8	100.4	77.6	76.2	83.9	83.5	91.7	104.5	114.9	123.6	125.4	132.6	122.6	139.0	140.3
Canada	65.1	57.6	48.8	58.2	63.7	66.1	68.6	70.7	49.2	62.8	63.7	58.8	59.1	59.8	...
Czech Republic	14.3	9.7	10.7	38.1	34.8	32.4	30.0	30.7	30.3	31.9	29.9	31.1	31.3	34.2	...
Denmark	59.3	55.4	45.1	34.7	49.8	115.4	125.9	111.2	57.7	93.0	97.7	89.6	98.7	122.9	...
Finland	57.6	47.1	46.4	48.9	48.1	52.5	57.1	57.7	59.0	66.0	73.9	67.7	67.4	67.0	...
France	172.5	134.9	113.5	125.2	128.4	145.9	170.3	171.9	105.6	131.8	135.5	117.2	135.8	155.4	...
Germany	63.1	61.1	38.7	44.7	45.9	52.0	53.5	54.4	48.4	55.4	58.1	53.2	58.1	62.5	...
Greece	48.0	34.6	23.2	23.7	23.5	28.0	25.4	29.1	11.9	13.9	13.0	14.1	14.7	14.8	...
Hungary	21.5	19.8	19.9	25.0	26.1	28.8	32.7	36.4	33.3	41.4	39.2	47.3	51.5	48.3	52.1
Italy	48.5	40.5	31.3	33.4	37.8	42.3	45.2	43.0	32.9	34.6	31.7	30.9	30.2	32.2	...
Japan	25.4	20.6	18.7	31.6	33.9	49.6	51.7	34.0	24.5	31.3	30.8	32.1	42.3	52.5	...
Netherlands	48.4	39.1	36.5	38.4	40.8	42.7	42.2	41.8	45.3	69.4	80.3	79.0	79.8	84.2	...
Norway	63.9	59.0	59.8	63.4	64.1	78.9	92.2	100.7	87.4	101.9	105.9	101.0	97.4	99.7	102.3
Portugal	49.8	46.3	38.6	44.8	50.6	57.2	58.3	60.7	58.8	61.8	60.4	60.9	62.3	62.9	54.6
Slovak Republic	33.5	31.0	28.4	27.2	24.5	28.1	25.2	23.2	23.8	25.1	26.4	27.4	27.5	28.3	...
Spain	66.6	69.1	62.0	71.9	73.6	87.2	101.5	102.6	81.2	84.5	84.2	83.7	81.6	92.0	...
Sweden	108.9	115.2	112.4	147.1	154.5	206.6	225.8	186.2	143.3	188.6	192.6	171.3	177.8	192.7	211.4
United Kingdom	58.5	53.0	51.1	52.3	48.6	50.5	49.9	51.1	57.8	54.8	55.3	54.9	57.0	44.7	40.9
United States	17.2	18.7	19.2	19.4	21.3	22.0	23.5	26.1	27.2	29.2	28.3	29.3	30.3	31.5	31.6
Changes in EA-to-GDP															
Total	1.0	-3.9	-5.1	4.4	1.9	6.1	4.1	-0.8	-8.0	6.3	0.3	-1.4	3.1	3.6	...
Austria	-0.6	-0.9	4.6	3.8	0.9	11.5	3.0	1.8	-6.5	10.3	4.8	-1.5	-0.7	2.5	...
Belgium	20.5	-9.4	-22.8	-1.4	7.7	-0.4	8.2	12.9	10.3	8.7	1.8	7.2	-9.9	16.3	1.3
Canada	2.7	-7.6	-8.8	9.4	5.5	2.4	2.6	2.1	-21.5	13.6	0.9	-4.8	0.3	0.6	...
Czech Republic	0.4	-4.6	1.1	27.4	-3.3	-2.4	-2.4	0.7	-0.4	1.6	-2.0	1.2	0.2	2.9	...
Denmark	-10.6	-3.9	-10.3	-10.4	15.0	65.7	10.4	-14.7	-53.5	35.3	4.8	-8.1	9.1	24.2	...
Finland	6.8	-10.5	-0.7	2.5	-0.8	4.4	4.6	0.6	1.3	7.0	7.9	-6.1	-0.3	-0.4	...
France	6.6	-37.6	-21.4	11.7	3.2	17.5	24.5	1.6	-66.3	26.2	3.7	-18.4	18.6	19.6	...
Germany	1.8	-2.0	-22.4	6.1	1.2	6.1	1.5	0.9	-6.0	7.0	2.7	-4.9	4.9	4.4	...
Greece	-30.6	-13.4	-11.4	0.5	-0.2	4.6	-2.7	3.7	-17.2	2.0	-0.9	1.2	0.6	0.1	...
Hungary	1.0	-1.6	0.1	5.1	1.1	2.7	3.9	3.7	-3.1	8.1	-2.1	8.1	4.2	-3.2	3.7
Italy	10.1	-8.0	-9.2	2.1	4.4	4.6	2.9	-2.3	-10.1	1.7	-2.9	-0.8	-0.7	2.0	...
Japan	-11.3	-4.8	-1.9	13.0	2.2	15.7	2.1	-17.8	-9.5	6.8	-0.5	1.3	10.2	10.2	...
Netherlands	1.1	-9.3	-2.6	1.9	2.5	1.9	-0.6	-0.4	3.5	24.2	10.8	-1.3	0.8	4.4	...
Norway	0.7	-4.9	0.8	3.6	0.7	14.8	13.3	8.5	-13.3	14.5	4.1	-5.0	-3.6	2.3	2.6
Portugal	7.9	-3.6	-7.7	6.2	5.8	6.6	1.1	2.4	-2.0	3.0	-1.4	0.5	1.4	0.5	-8.3
Slovak Republic	-0.2	-2.5	-2.6	-1.1	-2.7	3.6	-2.9	-2.0	0.6	1.3	1.3	1.0	0.1	0.8	...
Spain	9.6	2.5	-7.1	10.0	1.6	13.7	14.3	1.1	-21.4	3.3	-0.3	-0.5	-2.2	10.4	...
Sweden	-17.2	6.3	-2.7	34.6	7.4	52.2	19.1	-39.6	-42.9	45.3	4.0	-21.3	6.5	14.9	18.7
United Kingdom	12.2	-5.4	-1.9	1.1	-3.6	1.9	-0.7	1.2	6.7	-3.0	0.5	-0.4	2.1	-12.3	-3.9
United States	0.1	1.5	0.5	0.3	1.9	0.7	1.5	2.6	1.1	2.0	-0.9	1.0	1.0	1.2	0.1

Source: Authors' estimates from OECD data.

Table 7b. Selected Advanced Economies: Financial Transactions and Other Economic Flows in Equity Asset (EA) of the Nonfinancial Corporation Sector, 2000-14

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transactions in EA-to-GDP															
							(Percent of GDP)								
Total	5.5	2.4	2.5	1.7	2.4	2.1	3.7	3.6	3.2	1.7	2.0	2.3	1.7	1.6	...
Austria	0.8	0.3	2.0	3.0	0.9	2.7	3.7	5.5	4.1	3.4	1.0	3.2	0.3	2.8	...
Belgium	7.0	2.3	-0.9	7.7	8.6	3.7	11.7	9.4	9.3	6.3	10.3	6.9	-2.9	0.2	1.4
Canada	-2.0	1.2	2.6	-1.0	1.5	-0.8	2.6	4.7	5.2	3.8	-0.5	1.7	0.4	1.5	...
Czech Republic	1.1	2.7	1.3	11.3	-0.3	-1.2	0.2	2.6	1.5	1.1	0.6	0.3	-0.7	1.7	...
Denmark	11.4	0.5	6.6	-5.4	11.7	14.2	18.9	-6.0	3.2	7.3	-5.0	-0.2	6.6	3.9	...
Finland	16.9	2.8	3.6	4.3	3.4	1.8	6.7	4.4	7.3	2.3	3.1	-0.7	1.2	1.2	...
France	11.0	4.9	4.3	2.9	4.6	4.7	5.9	5.3	6.0	2.9	3.7	2.7	3.9	1.7	...
Germany	8.4	1.6	3.4	0.8	1.8	0.7	4.5	1.8	-1.9	1.3	2.7	2.2	1.5	1.0	...
Greece	1.8	0.6	1.1	-0.2	0.0	0.2	-0.6	2.2	1.0	1.4	0.7	0.9	-1.3	-3.7	...
Hungary	3.2	0.4	1.7	8.1	2.1	4.6	4.2	4.9	0.7	4.6	-0.7	9.9	8.2	1.6	3.9
Italy	2.6	5.2	2.1	2.1	-0.3	0.2	0.6	2.3	0.1	-2.1	0.9	2.3	-1.0	0.1	...
Japan	-0.5	-0.4	0.6	-0.4	0.1	0.3	1.2	1.5	1.5	0.9	0.2	-0.4	0.2	-0.1	...
Netherlands	6.1	-2.4	4.7	4.3	5.1	9.9	2.1	3.3	5.6	5.6	13.7	3.9	3.3	6.7	...
Norway	11.3	2.7	3.9	5.3	3.7	14.2	12.0	8.5	10.0	4.2	9.5	5.4	5.8	4.7	3.5
Portugal	8.7	6.3	0.4	6.1	2.3	3.3	5.0	8.4	5.0	2.2	1.3	2.4	1.0	1.7	-3.6
Slovak Republic	0.6	0.1	-0.1	0.0	0.1	0.3	0.0	-0.3	2.6	0.6	0.5	2.0	1.4	0.8	...
Spain	13.6	5.3	6.2	6.8	5.6	6.5	10.9	8.2	3.4	0.4	2.7	0.0	0.4	1.7	...
Sweden	7.6	-2.4	3.9	6.2	0.7	5.6	7.6	10.8	3.3	5.2	1.9	7.3	2.4	1.7	2.6
United Kingdom	25.4	5.3	6.4	2.8	3.9	5.2	5.3	6.6	8.0	1.0	2.3	3.9	2.0	-0.4	-3.7
United States	2.2	2.1	1.3	0.9	2.3	1.1	2.4	2.6	2.9	1.5	1.2	2.4	2.1	2.2	1.7
Other economics flows in EA-to-GDP															
Total	-4.5	-6.3	-7.6	2.7	-0.6	4.0	0.4	-4.4	-11.1	4.6	-1.6	-3.7	1.4	1.9	...
Austria	-1.5	-1.2	2.5	0.9	0.1	8.8	-0.7	-3.7	-10.6	6.9	3.7	-4.7	-1.0	-0.3	...
Belgium	13.6	-11.7	-21.9	-9.1	-0.9	-4.1	-3.5	3.5	1.0	2.4	-8.5	0.3	-7.0	16.1	-0.1
Canada	4.7	-8.7	-11.4	10.4	4.0	3.2	0.0	-2.7	-26.7	9.7	1.4	-6.6	-0.1	-0.9	...
Czech Republic	-0.7	-7.3	-0.3	16.1	-3.0	-1.1	-2.6	-1.9	-1.9	0.5	-2.6	0.9	0.9	1.1	...
Denmark	-21.9	-4.5	-16.9	-5.0	3.3	51.4	-8.4	-8.7	-56.7	28.0	9.8	-7.9	2.5	20.3	...
Finland	-10.2	-13.2	-4.2	-1.8	-4.2	2.5	-2.1	-3.8	-6.0	4.7	4.8	-5.4	-1.5	-1.6	...
France	-4.4	-42.5	-25.7	8.8	-1.3	12.8	18.5	-3.7	-72.2	23.3	0.0	-21.0	14.7	17.9	...
Germany	-6.6	-3.6	-25.8	5.3	-0.6	5.4	-3.0	-0.9	-4.2	5.7	0.0	-7.1	3.3	3.4	...
Greece	-32.4	-14.0	-12.5	0.7	-0.1	4.4	-2.1	1.6	-18.2	0.6	-1.6	0.2	1.8	3.8	...
Hungary	-2.2	-2.1	-1.6	-3.0	-1.0	-1.9	-0.3	-1.2	-3.9	3.6	-1.4	-1.9	-4.0	-4.8	-0.2
Italy	7.5	-13.2	-11.3	0.0	4.7	4.4	2.3	-4.6	-10.1	3.8	-3.9	-3.1	0.3	1.9	...
Japan	-10.8	-4.4	-2.5	13.4	2.1	15.5	1.0	-19.2	-11.0	6.0	-0.7	1.7	10.0	10.3	...
Netherlands	-5.0	-7.0	-7.3	-2.4	-2.7	-7.9	-2.7	-3.6	-2.2	18.5	-2.9	-5.2	-2.5	-2.3	...
Norway	-10.6	-7.6	-3.1	-1.7	-3.0	0.6	1.3	0.0	-23.3	10.3	-5.4	-10.3	-9.4	-2.4	-0.9
Portugal	-0.8	-9.8	-8.1	0.1	3.5	3.3	-3.9	-6.0	-7.0	0.8	-2.7	-1.8	0.5	-1.2	-4.7
Slovak Republic	-0.7	-2.6	-2.5	-1.1	-2.8	3.3	-2.9	-1.7	-1.9	0.7	0.8	-1.0	-1.4	0.0	...
Spain	-4.0	-2.8	-13.4	3.1	-4.0	7.2	3.4	-7.1	-24.8	2.9	-3.0	-0.5	-2.6	8.7	...
Sweden	-24.8	8.7	-6.7	28.5	6.7	46.5	11.6	-50.4	-46.2	40.1	2.2	-28.6	4.1	13.3	16.1
United Kingdom	-13.1	-10.7	-8.2	-1.7	-7.5	-3.3	-5.9	-5.4	-1.3	-3.9	-1.8	-4.4	0.0	-11.9	-0.1
United States	-2.1	-0.5	-0.9	-0.7	-0.5	-0.4	-1.0	0.0	-1.8	0.5	-2.2	-1.4	-1.0	-1.1	-1.5

Source: Authors' estimates from OECD data.

Appendix Table 8a. Selected Advanced Economies: Net Financial Wealth (NFW) of the Nonfinancial Corporation Sector, 2000-14

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
NFW-to-GDP															
							(Percent of GDP)								
Total	11.6	6.3	-1.2	6.8	10.8	18.6	22.7	19.5	4.6	12.0	16.8	14.5	17.2	24.1	...
Austria	-28.0	-29.4	-23.8	-21.5	-16.9	0.9	4.8	7.5	-0.4	10.3	16.7	17.2	17.1	21.9	...
Belgium	98.7	95.6	80.4	74.0	67.5	67.3	81.3	96.2	124.8	142.8	160.5	172.1	147.8	147.4	142.0
Canada	14.5	6.3	-3.3	9.1	15.4	29.1	29.1	36.7	11.8	24.5	23.7	22.0	17.8	22.6	...
Czech Republic	-14.0	-12.8	-13.3	15.8	17.2	16.7	13.6	12.5	8.4	10.5	9.5	9.1	12.7	15.6	...
Denmark	37.3	33.2	25.8	14.3	19.2	89.0	86.2	74.0	20.6	52.2	72.0	65.2	71.9	91.2	...
Finland	27.7	21.2	20.9	23.8	21.5	24.5	24.7	25.2	20.7	22.6	28.9	25.4	26.5	28.2	...
France	138.0	99.2	78.6	94.5	99.6	117.3	140.7	143.5	73.9	97.5	102.8	84.0	100.1	120.7	...
Germany	34.0	34.2	10.1	14.2	15.3	21.2	20.0	21.6	16.1	21.3	21.2	18.0	24.3	28.5	...
Greece	22.2	6.6	-6.8	-6.1	-6.6	-4.7	-8.7	-6.1	-29.5	-28.2	-32.9	-35.1	-37.7	-42.2	...
Hungary	-9.4	-7.8	0.4	3.4	3.2	2.3	7.1	6.4	-1.6	1.3	1.6	10.6	14.0	17.3	23.1
Italy	12.9	0.6	-10.7	-11.3	-7.2	-5.4	-5.7	-12.4	-26.1	-23.8	-26.4	-26.7	-27.3	-23.9	...
Japan	-29.1	-32.4	-35.4	-8.6	3.0	29.7	38.2	11.7	-2.8	9.3	14.1	20.6	34.1	54.2	...
Netherlands	-33.9	-38.7	-46.0	-39.2	-28.7	-21.3	-13.5	-4.8	-4.7	23.0	35.8	36.7	40.5	47.8	...
Norway	23.1	15.7	13.6	20.0	23.8	40.8	53.2	55.1	29.1	46.8	51.4	47.4	39.9	39.0	41.8
Portugal	6.2	-5.5	-13.0	-11.7	-5.5	-0.1	-2.2	-5.8	-21.7	-17.2	-6.2	-20.2	-18.9	-22.2	-19.1
Slovak Republic	19.9	16.1	8.5	10.8	9.5	16.0	11.2	4.8	5.4	5.2	9.4	9.1	8.9	9.5	...
Spain	35.5	34.5	25.7	32.3	29.3	36.2	37.5	27.3	0.4	0.9	1.6	7.1	10.9	30.3	...
Sweden	61.6	62.8	62.5	97.2	112.7	165.3	182.1	131.6	68.3	111.9	126.9	104.2	113.9	136.5	149.1
United Kingdom	-7.3	-19.3	-37.9	-24.7	-26.4	-27.1	-20.4	-18.7	-20.3	-23.3	-10.6	-30.7	-29.8	-20.8	-23.7
United States	-0.1	-0.6	-2.3	0.3	4.0	5.3	6.6	7.2	-2.4	1.7	6.5	5.5	4.7	6.3	6.8
Changes in NFW-to-GDP															
Total	2.9	-5.2	-7.6	8.0	4.0	7.8	4.1	-3.1	-14.9	7.4	4.8	-2.3	2.7	6.8	...
Austria	-4.8	-1.3	5.6	2.3	4.5	17.9	3.9	2.7	-7.9	10.7	6.4	0.5	-0.1	4.8	...
Belgium	21.1	-3.1	-15.1	-6.5	-6.4	-0.3	14.0	14.9	28.5	18.0	17.7	11.6	-24.2	-0.4	-5.3
Canada	-1.7	-8.2	-9.6	12.4	6.3	13.7	0.0	7.6	-24.9	12.7	-0.8	-1.7	-4.2	4.8	...
Czech Republic	4.5	1.2	-0.5	29.1	1.4	-0.5	-3.1	-1.1	-4.0	2.1	-1.0	-0.4	3.6	2.8	...
Denmark	-26.4	-4.1	-7.4	-11.5	4.8	69.8	-2.7	-12.2	-53.4	31.7	19.7	-6.8	6.7	19.3	...
Finland	5.8	-6.6	-0.3	2.9	-2.3	3.0	0.3	0.5	-4.4	1.9	6.3	-3.5	1.1	1.7	...
France	4.5	-38.8	-20.7	16.0	5.0	17.8	23.4	2.9	-69.7	23.6	5.3	-18.8	16.0	20.7	...
Germany	1.8	0.2	-24.1	4.1	1.2	5.8	-1.2	1.6	-5.5	5.2	-0.2	-3.2	6.4	4.1	...
Greece	-34.1	-15.7	-13.3	0.7	-0.5	1.8	-4.0	2.6	-23.4	1.3	-4.7	-2.3	-2.6	-4.5	...
Hungary	-4.7	1.6	8.2	2.9	-0.1	-0.9	4.8	-0.8	-8.0	3.0	0.2	9.1	3.4	3.3	5.8
Italy	7.3	-12.4	-11.3	-0.6	4.1	1.8	-0.2	-6.7	-13.7	2.3	-2.6	-0.3	-0.6	3.5	...
Japan	-5.9	-3.4	-3.0	26.8	11.6	26.7	8.4	-26.5	-14.5	12.1	4.9	6.5	13.5	20.1	...
Netherlands	1.2	-4.7	-7.4	6.9	10.4	7.4	7.7	8.7	0.1	27.7	12.8	0.9	3.8	7.3	...
Norway	-0.2	-7.4	-2.1	6.4	3.8	17.0	12.3	1.9	-25.9	17.6	4.6	-4.0	-7.5	-0.9	2.8
Portugal	7.0	-11.8	-7.5	1.3	6.3	5.3	-2.0	-3.6	-16.0	4.6	11.0	-14.0	1.3	-3.3	3.2
Slovak Republic	14.2	-3.9	-7.6	2.3	-1.3	6.5	-4.8	-6.5	0.6	-0.2	4.3	-0.3	-0.2	0.6	...
Spain	6.0	-1.0	-8.8	6.6	-3.0	6.9	1.3	-10.1	-26.9	0.5	0.7	5.5	3.8	19.4	...
Sweden	-23.5	1.2	-0.3	34.7	15.5	52.5	16.9	-50.5	-63.3	43.6	15.0	-22.7	9.7	22.5	12.7
United Kingdom	2.1	-12.0	-18.5	13.2	-1.7	-0.8	6.8	1.6	-1.5	-3.0	12.7	-20.1	1.0	9.0	-2.9
United States	6.7	-0.5	-1.8	2.6	3.7	1.3	1.4	0.6	-9.6	4.1	4.8	-1.0	-0.8	1.6	0.4

Source: Authors' estimates from OECD data.

Appendix Table 8b. Selected Advanced Economies: Financial Transactions and Other Economic Flows in Net Financial Wealth (NFW) of the Nonfinancial Corporation Sector, 2000-14

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Transactions in NFW-to-GDP															
							(Percent of GDP)								
Total	3.7	1.8	1.5	2.7	2.6	0.5	0.0	-0.9	-3.8	4.1	3.5	-0.7	-0.3	0.7	...
Austria	-5.9	-3.9	0.3	-0.3	1.5	1.5	3.7	3.7	1.9	3.2	1.6	2.9	1.5	3.4	...
Belgium	6.6	6.0	6.6	2.6	-2.7	4.2	13.7	16.6	17.7	2.9	18.1	5.5	0.7	-7.0	-2.3
Canada	-1.3	1.3	3.9	2.0	2.9	3.7	5.9	9.3	6.3	8.6	6.7	4.0	0.9	1.5	...
Czech Republic	2.0	0.9	-0.8	4.6	1.3	1.2	-0.9	-0.5	1.0	-0.4	-1.4	-1.0	-0.6	-0.2	...
Denmark	1.5	8.8	3.3	-2.7	4.1	19.1	10.4	-3.0	6.3	5.7	6.8	-1.3	9.3	8.3	...
Finland	13.0	9.5	6.4	3.7	1.8	-1.0	1.2	1.0	-4.4	0.4	2.1	0.3	0.7	2.7	...
France	7.2	3.5	3.8	4.5	4.0	3.5	2.8	3.7	0.5	2.6	4.7	1.7	1.7	1.6	...
Germany	6.0	2.6	2.0	1.8	3.3	0.7	8.4	4.8	-2.7	3.0	2.9	-0.9	2.1	4.5	...
Greece	-2.6	-3.4	-4.9	-1.9	-2.6	-4.1	-6.1	-1.7	-7.3	1.1	-6.8	-1.2	-2.8	-5.7	...
Hungary	-5.0	-1.6	6.0	6.2	-2.4	0.1	1.4	-1.3	-2.8	1.6	2.4	13.6	5.3	6.2	5.2
Italy	-2.1	-0.7	-2.2	-1.8	-1.5	-1.7	-1.7	-1.2	-4.2	1.1	0.4	-0.4	-0.2	2.1	...
Japan	4.6	4.9	4.0	9.2	6.5	5.3	1.3	3.0	3.5	5.3	5.7	3.4	4.9	4.8	...
Netherlands	4.0	5.5	6.2	5.8	9.0	10.8	5.4	7.8	6.5	8.8	14.8	6.2	5.2	7.5	...
Norway	10.5	2.9	4.1	9.3	1.9	10.1	7.7	0.6	1.0	4.6	4.6	3.2	1.3	1.3	1.4
Portugal	-0.7	-3.0	2.2	8.8	0.7	-4.4	-2.7	-4.8	-8.7	-4.5	-0.3	-3.8	0.9	5.6	0.9
Slovak Republic	15.7	1.6	-0.1	1.5	3.1	-0.6	5.6	0.8	0.7	4.9	1.7	2.0	5.4	5.4	...
Spain	9.6	0.1	1.1	1.2	-0.7	-3.6	-6.3	-6.9	-3.5	2.1	4.1	4.5	4.9	6.4	...
Sweden	-0.7	-11.1	4.1	6.4	6.8	2.0	4.2	-3.5	-12.9	5.6	5.5	1.3	3.0	3.6	1.1
United Kingdom	22.1	0.8	2.3	2.9	3.7	3.5	2.5	3.4	4.2	6.5	5.2	4.4	3.5	1.4	-1.1
United States	0.1	1.0	-0.2	0.8	1.5	-2.5	-3.7	-5.6	-9.7	3.7	1.6	-4.7	-4.3	-2.9	-3.7
Other economics flows in NFW-to-GDP															
Total	-0.8	-7.0	-9.0	5.2	1.4	7.3	4.1	-2.2	-11.1	3.3	1.2	-1.6	3.0	6.2	...
Austria	1.1	2.5	5.3	2.6	3.0	16.4	0.1	-1.0	-9.8	7.5	4.8	-2.4	-1.6	1.4	...
Belgium	14.4	-9.1	-21.7	-9.1	-3.7	-4.5	0.3	-1.7	10.9	15.1	-0.4	6.1	-24.9	6.5	-3.0
Canada	-0.4	-9.5	-13.5	10.4	3.4	10.0	-6.0	-1.8	-31.2	4.1	-7.5	-5.6	-5.1	3.2	...
Czech Republic	2.5	0.2	0.4	24.5	0.1	-1.7	-2.2	-0.6	-5.0	2.5	0.4	0.6	4.2	3.1	...
Denmark	-27.9	-12.9	-10.8	-8.8	0.7	50.7	-13.1	-9.2	-59.7	26.0	12.9	-5.4	-2.6	11.0	...
Finland	-7.2	-16.1	-6.6	-0.8	-4.0	4.0	-1.0	-0.5	0.0	1.5	4.2	-3.8	0.4	-1.0	...
France	-2.7	-42.3	-24.5	11.4	1.0	14.2	20.6	-0.9	-70.1	21.0	0.7	-20.5	14.3	19.1	...
Germany	-4.3	-2.4	-26.1	2.3	-2.1	5.1	-9.5	-3.2	-2.8	2.2	-3.0	-2.3	4.2	-0.4	...
Greece	-31.5	-12.3	-8.4	2.5	2.1	5.9	2.2	4.2	-16.1	0.2	2.1	-1.0	0.2	1.2	...
Hungary	0.3	3.1	2.2	-3.2	2.3	-1.1	3.5	0.6	-5.2	1.4	-2.1	-4.5	-2.0	-2.9	0.6
Italy	9.5	-11.7	-9.0	1.3	5.6	3.5	1.4	-5.6	-9.5	1.2	-3.0	0.1	-0.4	1.4	...
Japan	-10.6	-8.3	-7.0	17.6	5.1	21.4	7.1	-29.4	-18.0	6.7	-0.8	3.1	8.6	15.3	...
Netherlands	-2.8	-10.2	-13.5	1.0	1.5	-3.4	2.4	0.9	-6.3	18.8	-2.0	-5.3	-1.4	-0.3	...
Norway	-10.7	-10.3	-6.2	-2.9	1.9	6.8	4.6	1.3	-26.9	13.0	0.0	-7.3	-8.8	-2.2	1.4
Portugal	7.6	-8.8	-9.7	-7.5	5.6	9.7	0.6	1.2	-7.3	9.1	11.3	-10.2	0.4	-8.9	2.2
Slovak Republic	-1.5	-5.5	-7.5	0.8	-4.3	7.1	-10.4	-7.3	-0.1	-5.1	2.6	-2.4	-5.6	-4.8	...
Spain	-3.6	-1.1	-10.0	5.4	-2.3	10.5	7.6	-3.2	-23.4	-1.6	-3.4	1.0	-1.1	13.0	...
Sweden	-22.8	12.3	-4.4	28.3	8.7	50.5	12.6	-47.0	-50.4	38.0	9.6	-24.0	6.8	18.9	11.5
United Kingdom	-20.1	-12.8	-20.8	10.3	-5.4	-4.3	4.2	-1.8	-5.8	-9.5	7.4	-24.6	-2.6	7.6	-1.8
United States	6.6	-1.5	-1.6	1.8	2.2	3.8	5.0	6.3	0.1	0.4	3.2	3.7	3.6	4.5	4.1

Source: Authors' estimates from OECD data.