

The Financial Situation and Financing of Nonfinancial Corporations in the Ten New EU Member States – A First Empirical Orientation

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This paper provides a first stocktaking of the available data on the financial situation and the financing of nonfinancial corporations (NFCs) in the ten new EU Member States (NMS-10). It focuses on comparing the situation in the NMS-10 with the status quo in the euro area. For most indicators of financial results and of the structure of liabilities and financial assets, the range between the minimum and the maximum within the euro area was sufficiently wide to embrace the corresponding NMS-10 values. Thus, the two groups are not very different from each other in this respect. Still, there are some differences between them that tend to be typical and are primarily attributable to the ongoing catching-up process of the NMS-10 economies and the more prominent role of inward FDI as well as the still minor role of outward FDI in their economic structure.

1 Introduction

In this paper, we take stock of the available data on the financial situation and the financing (in terms of stocks) of nonfinancial corporations (NFCs) in the ten new EU Member States. For this purpose, we will first give a selective overview of the related literature and then outline our own approach. By no means does our paper intend to present an in-depth analysis of the underlying economic relations that drive the financial results and the financing of NFCs in the NMS-10; instead, it aims to provide a first descriptive overview.

On the topic of financing NFCs in the euro area, the Eurosystem compiled a comprehensive report on financial structures already in 2002, with data relating mostly to the year 2000 (ECB, 2002). The report covers the financing structures of the various economic sectors in the individual countries, focusing mainly on financial intermediaries and markets in the individual countries. It has a less comparative approach than this paper, and it does not look at sector national accounts other than financial accounts. In particular, it does not track the NFCs' financial results.

Several papers examine the financial integration of the new EU Member States with the euro area (e.g. Cappiello et al., 2006; Reininger and Walko, 2006). These papers focus on the links between the new EU Member States and the euro area and relate primarily to the capital (bond and equity) markets. Moreover, there are several studies on financial development in the NMS-10 (Arpa, Reininger and Walko, 2005; Backé and Zumer, 2005; Backé, Égert and Zumer, 2006; Boissay Calvo-Gonzalez and Kozluk, 2006; ECB, 2006a; Kiss, Nagy and Vonnák, 2006). These studies focus on the development of domestic credit to the private sector (covering households, nonfinancial corporations and other financial institutions). Some of them also include a brief analysis of

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the banking sector's external financial linkages, while cross-border credit to the private nonbank sector receives less attention. They investigate the appropriateness of the speed of credit growth compared with the economic fundamentals. In particular, some of them estimate equilibrium (domestic) credit-to-GDP ratios and try to disentangle the equilibrium trend and the cyclical (possibly excess) component of observed credit growth. Ultimately, these papers are also related to the issues of macroeconomic and financial stability.

A descriptive review of the financing structure of NFCs in the large new EU Member States can be found in an early paper that was, however, confined to external (versus internal) financing based on data of domestic and cross-border debt and equity (Reininger, Schardax and Summer, 2002).

De Haas (2005) covers a range of issues related to financing in the NMS-10 and in Bulgaria and Romania. Against the background of financial integration between the NMS-10 and the euro area in the banking sector, his contribution discusses the role of cross-border credit versus local credit and credit stability. On the basis of firm-level data, De Haas performs a detailed analysis of the capital structure of firms.

For general information on the NMS-10 and, more specifically, on structural features of these economies, the interested reader is referred, in particular, to the specialized information made available by The Vienna Institute for International Economic Studies – wiiw (wiiw, 2006, 2005). The European institutions provide another source of helpful comparative overviews (ECB Occasional Paper by Backé et al., 2004; ECB, 2006b; European Commission, 2006). Moreover, regular publications by international organizations (e.g. World Bank, 2006) often include an analysis of special structural topics in addition to regular reporting.

To the best of our knowledge, this paper provides the first comprehensive overview of NFCs' financial results, financing and financial investment structures in the NMS-10. Moreover, we focus on comparing the situation in the NMS-10 with the status quo in the euro area² with regard to both the financial results and the financing of NFCs. Given the restrictions on space, we refrain from elaborating extensively on developments over time. The flow data on the financial results describe the situation in the most recent full year available (mostly 2003 or 2004). Furthermore, we evaluated the situation also on the basis of a multi-year average (using the last four years available), so as to provide a robustness check. Its results confirm our main finding obtained on the basis of the most recent year available. Nevertheless, we report major differences between the multi-year average and the most recent annual values. Regarding stock data, we briefly mention the most important changes that occurred during the three-year period up to the most recent year-end data available (usually 2004).³ This stocktaking may form the basis for a more sophisticated approach to analyzing developments over time and estimating the underlying economic relations with econometric techniques. In general, it

² As the data in this paper relate to the period prior to January 1, 2007, the euro area does not include Slovenia.

³ For Latvia and Estonia, we could evaluate only the changes during a two-year and one-year period, respectively, due to the lack of available data.

has to be emphasized that the analysis of the financial situation and the financing of NFCs in the NMS-10 is limited, given the lack of data availability.⁴ More timely and comprehensive data sets would be highly welcome.

The paper is structured as follows. Section 2 provides a comparative analysis of NFCs' financial results in the NMS-10 and the euro area, focusing on the most recent full year available. Section 3 provides a comparative view of NFCs' financial items in the most recent closing balance sheet in the NMS-10 and the euro area, comprising the liability side (financing), the asset side (financial assets) and financial net wealth. Finally, section 4 summarizes the results and concludes.

2 Financial Results, Saving, Investment and the Financing Needs of NFCs

2.1 Profitability of NFCs

Looking at the financial results of NFCs in the most recent full year available, i.e. 2004 or 2003 (see table 1), both *operating surplus and entrepreneurial income*⁵ as a percentage of GDP were clearly highest in Lithuania and Latvia, followed by Estonia and the Czech Republic. The high profitability of NFCs in these countries was in line with their comparatively high total GDP growth. However, only the ratios in Lithuania and Latvia consistently exceeded the maximum ratios in the euro area. As expected for catching-up economies, most NMS-10 had profitability ratios above the euro area average and none of them recorded profitability ratios below the euro area minimum. Compared with the multi-year average, these performance indicators showed major changes only for Poland, where they increased from a low level related to the pronounced downturn of GDP growth in the early years of the decade.

A roughly similar ranking emerges when we relate *operating surplus and entrepreneurial income* to the *stock of shares and other equity* on the liabilities side of the NFCs' balance sheet or to their *total liabilities*. The lowest NMS-10 ratio equaled the euro area median value. Compared with the multi-year average, both indicators rose substantially in Poland. The indicator in relation to shares and other equity declined in Lithuania, as the increase in NFCs' operating surplus nearly matched the rise in their total liabilities, but fell short of the rise in shares and other equity.

⁴ As of mid-July 2006, the following were the most recent data available from the Eurostat database at that time: On both financial accounts stocks and transactions of NFCs, it was 2005 data for Hungary and Slovenia, 2004 data for Estonia, Latvia, Lithuania and Poland, and 2003 data for the Czech Republic and Cyprus. No data were provided for Malta and Slovakia. On the other sector national accounts of the NFCs, 2005 data were not available for any of the NMS-10, but 2004 data were available for Latvia, Lithuania and Poland, and 2003 data for the Czech Republic, Estonia and Slovakia. No data were provided for Cyprus, Hungary, Malta and Slovenia. Thus, both data sets were available only for five of the NMS-10 (the Czech Republic, Estonia, Latvia, Lithuania and Poland). However, just a small number of indicators involve both data sets. For the euro area countries (apart from Ireland and Luxembourg), financial accounts data were generally available for 2005, except for Germany, France and Finland (2004 data). Sector national accounts data were available for 2004, except for Portugal (2003 data).

⁵ *Entrepreneurial income* is defined as the operating surplus plus net property income before the allocation of other primary income to the respective account (i.e. before the deduction of distributed income and reinvested earnings on FDI in the reporting country). Thus, it is operating surplus minus the interest burden plus net other property income before the allocation of other primary income account.

Table 1

Profitability of NFCs in the NMS-10

Country	Year	Operating surplus		Entrepreneurial income		Operating surplus		Entrepreneurial income	
		gross	net	gross	net	gross	net	gross	net
		in % of GDP				in % of "shares and other equity" (stock)			
Czech Republic	2003	26.3	15.1	24.3	13.2	33.7	19.4	31.2	16.9
Estonia	2003	26.8	18.3	25.9	17.4	22.1	15.1	21.4	14.3
Cyprus	..	..	..	..	..	..	..	..	..
Lithuania	2004	33.0	25.3	32.2	24.5	34.4	26.4	33.6	25.6
Latvia	2004	32.3	20.5	34.9	23.2	48.8	31.1	52.8	35.1
Hungary	..	..	..	..	..	..	..	..	..
Malta	..	..	..	..	..	..	..	..	..
Poland	2004	19.1	10.3	18.3	9.5	26.1	14.1	25.0	13.0
Slovenia	..	..	..	..	..	..	..	..	..
Slovakia	2003	21.0	8.6	19.9	7.5	..	..	..	..
<i>Memorandum items</i>									
EU-12	2004	20.0	12.1	21.1	13.2	17.2	10.4	18.1	11.3
EU-12 median		20.9	12.4	21.0	13.1	18.9	12.3	19.9	13.9
EU-12 minimum		15.4	5.7	14.3	4.5	8.3	4.4	10.6	3.7
EU-12 maximum		25.3	17.1	27.9	19.7	42.8	24.8	44.6	26.6

Source: ECB and Eurostat, Eurostat, OeNB calculations.

2.2 Gross Value Added of NFCs

Turning to further components of NFCs' gross value added, *compensation of employees* as a percentage of the gross operating surplus in all NMS-10 (for which data were available) stood between the euro area minimum and average values, mostly considerably below the euro area average (see table 2). Also the subitem *employers' social contributions* in the NMS-10 was below the euro area median and in some cases (Lithuania, Latvia, Poland) even below the euro area minimum. The comparatively low share of compensation of employees in total gross value added suggests that the average level of labor productivity surpasses the average level of labor costs in the NMS-10 by more than it does on average in the euro area. This is in line with the data on macrocompetitiveness which The Vienna Institute for International Economic Studies publishes, which show comparative unit labor cost levels in the NMS-10 to be far lower than in Austria (wiiw, 2006). This may partly reflect the activity of (often mainly export-oriented) foreign enterprises that caused the average level of productivity to increase (owing to their know-how and technology) in the NMS-10, while having a lesser impact on the average wage level. Compared with the multi-year average, a major change occurred only in Poland, where the share of compensation of employees in gross value added was initially the highest among the NMS-10 (slightly above the euro area median) and fell sharply thereafter, partly reflecting the increase in unemployment during the pronounced downturn of GDP growth. The parallel rise in the share of operating surplus is consistent with the nominal decline of unit labor costs in industry (as opposed to producer price increases) during that period.

Subsidies exceeded other taxes on production only in the Czech Republic and Slovakia, while net other taxes on production in the NMS-10 had the same median as in the euro area (where the maximum value is an outlier). In Poland, the NFCs have the highest burden of net other taxes on production among the

Table 2

Gross Value Added of NFCs in the NMS-10								
Country	Year	Value added, gross	Compensation of employees	Other taxes on production minus subsidies	Operating surplus, gross	Compensation of employees	Other taxes on production minus subsidies	Operating surplus, gross
		1=2+3+4	2	3	4	5	6	7
		Flow items in % of gross value added				Flow items in % of gross operating surplus		
Czech Republic	2003	100.0	54.9	-1.4	46.6	117.8	-3.1	100.0
Estonia	2003	100.0	55.5	0.7	43.8	126.6	1.6	100.0
Cyprus	..	..	..	..	..	..	..	100.0
Lithuania	2004	100.0	43.4	0.1	56.4	77.0	0.2	100.0
Latvia	2004	100.0	46.0	1.5	52.5	87.7	2.8	100.0
Hungary	..	..	..	..	..	..	..	100.0
Malta	..	..	..	..	..	..	..	100.0
Poland	2004	100.0	51.2	1.9	46.9	109.1	4.1	100.0
Slovenia	..	..	..	..	..	..	..	100.0
Slovakia	2003	100.0	52.7	-1.0	48.3	109.2	-2.0	100.0
<i>Memorandum items</i>								
EU-12	2004	100.0	59.3	1.6	39.1	151.6	4.1	100.0
EU-12 median		100.0	60.6	0.4	39.0	155.6	0.9	100.0
EU-12 minimum		100.0	43.5	-0.1	30.8	77.6	-0.3	100.0
EU-12 maximum		100.0	65.1	4.1	56.1	211.3	13.4	100.0

Source: ECB and Eurostat, Eurostat; OeNB calculations.

NMS-10, which, however, does not exceed the corresponding burden in the euro area aggregate.

2.3 Deriving Net Saving of NFCs

Consumption of fixed capital (as a percentage of the gross operating surplus, see table 3), i.e. the depreciation ratio, was the most important factor in explaining the difference between the gross operating surplus (equal to 100%) and net saving (as a percentage of the gross operating surplus, see tables 3 and 4) in most of the NMS-10 for which data were available. This was also the case in the majority of euro area countries. Similarly, the allocation of other primary income was generally the second-most important factor both in the NMS-10 and in the euro area. Exceptions were Latvia and Lithuania, where (like in the minority of euro area countries) the depreciation ratio was relatively low and/or distributed income relatively high. Compared with the multi-year average, a major change occurred only in Poland, where the depreciation ratio was initially as high as in Slovakia. During these years, it declined as a result not only of the sharp rise in the operating surplus, but also of the nominal decrease in fixed capital consumption that reflected the sharp nominal (and real) decline of real investment between 2000 and 2004.

The *interest burden* as a percentage of gross operating surplus in the NMS-10 was mostly between the euro area minimum and median values. This is in line with the comparatively lower share of debt financing in total financing in the NMS-10. Moreover, the somewhat lower interest burden in most NMS-10 compared with the euro area may be partly attributable to the rather high share in total outstanding loans of cross-border (and, in particular, inter-

company) debt financing at relatively low foreign interest rates (given the actual exchange rate developments). Latvia was an exception, as it had a negative burden, whereas the value for the Czech Republic exceeded the euro area median. Similarly, the implicit average interest rate on gross debt stood outside the full euro area range only in Latvia (on the downside) and in the Czech Republic (on the upside). Thus, the Czech interest burden remained below the euro area maximum value only thanks to the relatively low share of debt financing in total financing. On the basis of the multi-year average, we observed an interest burden on NFCs above the euro area median not only in the Czech Republic, but also in Poland and Slovakia. This reflects primarily the fact that interest rates and interest margins in these two countries were higher in previous years than in the most recent year available.

Net other property income in the NMS-10 was rather close to the minimum value recorded in the euro area, where this income constituted a sizeable source of entrepreneurial income. Only in Latvia was this income non-negligible, but still below the euro area median. This may be considered a typical special feature of the NMS-10, as the NFCs in these countries started to accumulate financial assets at a much later point in time than those in the euro area countries. In particular, we may assume that the number and size of NFCs' participations in other domestic and foreign companies is considerably lower in the NMS-10 than on average in the euro area. This can be seen most clearly from the relatively low volumes of active (i.e. outward) FDI of these economies. Another indication of this is the lower share of equity in total financial assets (see section 3.2) coupled with the significantly lower ratio of total financial assets to operating surplus.

The *allocation of other primary income* (i.e. distributed income and reinvested earnings on FDI in the reporting country) had a very wide range in the NMS-10, but still remained within the corresponding euro area range. Interestingly, however, the share of *reinvested earnings on FDI in the reporting country* in the total allocation of other primary income amounted to between –2.5% and +7% in the euro area countries and to less than 2% in the euro area aggregate, while it was between 10% and 41% in the NMS-10 for which data were available. This is another special feature of NFCs in the NMS-10, which again relates to the role of FDI in these economies, as it reflects the great importance of passive (i.e. inward) FDIs in these economies. By contrast, in the NMS-10 except Latvia and Lithuania, the ratio of NFCs' *distributed income* (which excludes reinvested earnings on FDI in the reporting country) to gross operating surplus was below the second-lowest euro area value, with the euro area minimum being a clear outlier. This implies – *ceteris paribus* – a strengthening of the NFCs' internal financing in these countries and of the overall catching-up process. Compared with the multi-year average, the interest burden in the Czech Republic, Poland and Slovakia decreased by between 3 and 4.5 percentage points of the gross operating surplus and switched to a negative interest burden in Latvia. These changes fully translated into an increase in the allocation of other primary income. While it was mainly in the form of higher distributed income in the Czech Republic and Slovakia, it was mainly in the form of higher reinvested earnings on FDI in Latvia and exclusively in the form of higher reinvested earnings on FDI in Poland.

Table 3

Deriving Net Saving of NFCs in the NMS-10

Cost Factors, Other Property Income, Allocation of Other Primary Income and Current Transfers

Country	Year	Operating surplus, gross	Net interest payments	Net other property income	Entrepreneurial income, gross	Allocation of other primary income account	Current taxes on income and wealth	Net other current transfers	Consumption of fixed capital	Net saving
		1	2	3	4 = 1-2+3	5	6	7	8	9 = 1-2+3-5-6+7-8
Flow items in % of gross operating surplus										
Czech Republic	2003	100.0	8.3	1.0	92.7	24.7	14.9	-0.2	42.4	10.4
Estonia	2003	100.0	5.5	2.1	96.7	28.4	5.6	-25.2	31.9	5.5
Cyprus	..	..	..	..	..	..	..	..	..	..
Lithuania	2004	100.0	1.9	-0.5	97.7	54.3	5.4	0.2	23.3	14.7
Latvia	2004	100.0	-1.2	7.0	108.2	52.1	5.6	-2.4	36.3	11.7
Hungary	..	..	..	..	..	..	..	..	..	..
Malta	..	..	..	..	..	..	..	..	..	..
Poland	2004	100.0	4.1	-0.2	95.7	30.8	9.0	-0.3	45.9	9.7
Slovenia	..	..	..	..	..	..	..	..	..	..
Slovakia	2003	100.0	6.1	1.0	94.9	12.7	13.8	0.9	59.1	10.2
<i>Memorandum items</i>										
EU-12	2004	100.0	6.1	11.6	105.4	48.1	8.1	-3.0	39.6	6.5
EU-12 median		100.0	6.6	12.1	101.8	37.3	11.9	-1.5	39.9	5.2
EU-12 minimum		100.0	1.5	0.3	91.5	7.1	2.8	-11.2	23.6	-12.9
EU-12 maximum		100.0	16.1	34.6	127.5	57.6	17.9	0.7	63.0	43.8

Source: ECB and Eurostat, Eurostat, OeNB calculations.

Notes: Net interest payments: interest burden, i.e. interest paid minus interest received.

(Net) other property income: excluding allocation of other primary income account, i.e. excluding distributed income and reinvested earnings on FDI in the reporting country.

Allocation of other primary income account: distributed income and reinvested earnings on FDI in the reporting country.

In the NMS-10, the *tax burden* (current taxes on income and wealth as a percentage of the gross operating surplus) ranged from values close to the euro area minimum in the Baltic countries up to 14% to 15% in the Czech Republic and Slovakia, which is above the euro area median. Thus, four out of the six NMS-10 for which data were available showed tax ratios below the EU-12 median, and three of these six countries had tax ratios below the tax ratio in the euro area aggregate. However, in all NMS-10 for which data were available, tax ratios were above the euro area minimum.

2.4 NFCs' Saving-Investment Balance and Financing Needs

Net saving, which excludes reinvested earnings on FDI in the reporting country, was at or (in most cases) above the euro area average in all NMS-10 for which data were available, both as a percentage of the gross operating surplus and as a percentage of GDP (see table 4). The same is true of gross saving, with the exception of gross saving as a percentage of the gross operating surplus in Estonia and Lithuania (due to the comparatively low ratio of fixed-capital consumption to GDP in these two countries). Compared with the multi-year average, a major change in net saving occurred only in Poland, where net saving was initially even slightly negative. The sharp increase in net saving as a percentage of the gross operating surplus (to values above the euro area median) was primarily attributable to the decline in the consumption of fixed capital.

Relative to GDP, the increase in net saving reflected the rise in the gross operating surplus. Thus, gross saving remained stable relative to the gross operating surplus in Poland, but increased relative to GDP. The value of *net capital transfers* received was mostly in line with the euro area median, with a somewhat higher value only in Latvia.

Gross fixed capital formation (GFCF) as a percentage of the gross operating surplus in the NMS-10 was within the euro area range, with below-median ratios only in Lithuania and – to a lesser extent – in Poland. However, the *GFCF-to-GDP ratio* (see table 4, bottom) was close to the euro area maximum in Lithuania and above this maximum ratio in all other NMS-10 (except Poland). This confirms the strong catching-up process in these economies. By contrast, in Poland, the rather low ratio of GFCF to the gross operating surplus was coupled with a comparatively low ratio of the gross operating surplus to GDP (even though the latter ratio rose compared with the multi-year average). Thus, the GFCF-to-GDP ratio in Poland was the lowest among the NMS-10 and close to the euro area minimum – which is at odds with the country's status of a catching-up economy. Compared with the multi-year average, gross (fixed) capital formation declined relative to the gross operating surplus and to GDP. It has to be mentioned, however, that Poland witnessed very high investment growth in 2005 and 2006 that has changed this situation at least to some extent.

Net borrowing (which implies the net incurrence of liabilities for real investment) *as a percentage of the gross operating surplus* was most pronounced in Estonia and Latvia, exceeding that of any euro area country. In most other NMS-10, this ratio was in a range quite close to the euro area average. Relative to GDP, however, net borrowing requirements of NFCs in the NMS-10 were typically larger (in most cases considerably) than the euro area average, as would be expected for catching-up economies. This is attributable to the fact that investment in most NMS-10 was above the euro area maximum, while saving remained below the euro area maximum (with the exception of Latvia), but above the average. Exceptions were NFCs in Slovakia, where the ratio of net borrowing to GDP was at the euro area average level, and in Poland, where NFCs were net lenders. Net borrowing requirements relative to GDP were larger in Estonia and Latvia (and, to a significantly lesser extent, in Hungary and Slovenia) than in any euro area country. In Estonia, high net borrowing was ascribable not only to a very high gross investment ratio (like in Latvia), but also to a relatively low gross saving ratio (owing to a small depreciation ratio). From a macroeconomic viewpoint, the saving-investment imbalance of NFCs contributed significantly to the sizeable current account deficit in Estonia and Latvia. Compared with the multi-year average, NFCs' gross saving was rather stable in these two countries, while investment increased so that their net borrowing ratio was more negative in the most recent year for which data were available. By contrast, in Poland, NFCs were net lenders: (more or less average) gross saving (including net capital transfers) exceeded relatively low gross capital formation – a situation that is similar to the one observed in some euro area countries, but not in line with the status of Poland as a catching-up economy. On the basis of the multi-year average, the NFCs in Poland were still net borrowers, while the NFCs in Slovakia had net lender status. However,

Table 4

Saving, Investment and the Financing Needs of NFCs in the NMS-10									
Country	Year	Net saving	Net capital transfers	Gross saving	Gross fixed capital formation	Gross other capital formation	Net lending (+) / net borrowing (-)	Net acquisition of financial assets	Net incurrence of liabilities
		1	2	3	4	5	6 = 3-4-5	7	8 = 6-7
Flow items in % of the gross operating surplus									
Czech Republic	2003	10.4	4.6	57.4	67.2	1.9	-12.4	33.3	-45.7
Estonia	2003	5.5	2.2	39.6	75.1	..	-51.2	35.0	-86.2
Cyprus	..	..	..	..	..	..	..	..	..
Lithuania	2004	14.7	0.7	38.7	41.5	6.1	-9.8	9.2	-19.0
Latvia	2004	11.7	8.0	56.0	75.8	16.8	-36.7	38.9	-75.6
Hungary	..	..	..	..	..	..	..	..	..
Malta	..	..	..	..	..	..	..	..	..
Poland	2004	9.7	3.2	58.8	48.5	8.0	2.4	39.2	-36.9
Slovenia	..	..	..	..	..	..	..	..	..
Slovakia	2003	10.2	2.8	72.0	75.7	-1.1	-3.9	..	..
Memorandum items									
EU-12	2004	6.5	3.6	49.7	54.9	1.1	-6.4	28.8	-35.1
EU-12 median		5.2	3.8	62.6	57.5	0.9	-10.6	37.4	-29.2
EU-12 minimum		-12.9	0.4	33.9	37.4	-0.9	-26.8	-4.7	-118.5
EU-12 maximum		43.8	19.1	79.9	93.7	6.0	38.1	91.7	6.7
Flow items in % of GDP									
Czech Republic	2003	2.7	1.2	15.1	17.6	0.5	-3.3	8.7	-12.0
Estonia	2003	1.5	0.6	10.6	20.1	..	-13.7	9.4	-23.1
Cyprus	2003	..	..	..	..	..	-3.7	11.0	-14.7
Lithuania	2004	4.9	0.2	12.8	13.7	2.0	-3.2	3.0	-6.3
Latvia	2004	3.8	2.6	18.1	24.5	5.4	-11.8	12.6	-24.4
Hungary	2005	..	..	..	..	..	-5.7	9.3	-15.0
Malta	..	..	..	..	..	..	..	..	..
Poland	2004	1.8	0.6	11.3	9.3	1.5	0.5	7.5	-7.1
Slovenia	2005	..	..	..	..	..	-4.9	9.3	-14.2
Slovakia	2003	2.1	0.6	15.1	15.9	-0.2	-0.8	..	..
Memorandum items:									
EU-12	2004	1.3	0.7	10.0	11.0	0.2	-1.3	5.8	-7.0
EU-12 median		1.0	0.8	11.1	10.2	0.2	-0.3	5.6	-5.9
EU-12 minimum		-2.0	0.1	7.4	8.6	-0.2	-4.6	-1.0	-20.4
EU-12 maximum		9.0	3.0	17.2	15.0	1.2	8.2	15.8	1.5

Source: ECB and Eurostat, Eurostat, OeNB calculations.

Notes: Gross saving: net saving plus net capital transfers plus consumption of fixed assets.

Net lending (+) / net borrowing (-): ratio derived from published data for net lending / net borrowing or from data for net financial transactions.

(The latter approach was chosen in the case of Cyprus, Hungary and Slovenia due to lack of recent data on sector national accounts.)

Net incurrence of liabilities: ratio derived as difference of the ratios of net lending / net borrowing minus net acquisition of financial assets.

in Slovakia, this situation was ascribable to exceptionally high gross saving of NFCs (mainly due to very high net capital transfers in the years 2000 to 2002): NFCs' gross saving was higher than in all other NMS-10 and in all euro area countries; NFCs' gross (fixed) capital formation was also the highest among the NMS-10. In Poland, NFCs had achieved net lender status already by 2003 as a result of relatively stable gross saving (that even increased relative to GDP) and sharply declining investment. As pointed out above, however, this situation has changed in the meantime in Poland as well.

The net acquisition of financial assets (which implies the net incurrence of liabilities for net financial investment) in the NMS-10 was mostly close to the euro area median as a percentage of the gross operating surplus and generally

above the median when measured relative to GDP (with Lithuania as the only exception). Given the already relatively high net borrowing requirements in the NMS-10 (with the exception of Poland and, to a lesser extent, Slovakia), the generally considerable level of net financial investment signals that, on average, NFCs in the NMS-10 did not face serious constraints in incurring financial liabilities. However, while in some euro area countries net financial investment even exceeded real investment, i.e. gross capital formation, this was not the case in any of the NMS-10 for which data were available. Moreover, the net acquisition of financial assets was even lower than net borrowing in Lithuania (owing to its low net financial investment) and in Estonia (given its high net borrowing). We observed such a constellation also in two euro area countries.

In Estonia and Latvia, the *total net incurrence of liabilities as a percentage of the gross operating surplus* was far larger than the corresponding euro area median, reflecting the exceptionally high net borrowing requirements in these countries. Relative to GDP, the buildup of liabilities in Estonia and Latvia even exceeded the euro area maximum, and it was higher in all NMS-10 (for which data were available) than the euro area median, which is attributable to both larger net borrowing ratios (with the exception of Poland) and larger net financial investment. The relatively low value in Lithuania resulted from the fact that the net acquisition of financial assets by NFCs was below average.

3 Financing and Financial Assets of NFCs

3.1 Structure of NFCs' Liabilities

Turning to the balance sheet of NFCs, in particular to the stock data on financing and financial investment, we find that on the liabilities side, the share of the loan stock in total liabilities ranged roughly from 20% to 30% in the NMS-10 for which data were available. The top of this range was close to the euro area average (see table 5). Not surprisingly, Estonia and Latvia recorded the highest ratios among the NMS-10 (apart from Cyprus). This is in line with their very high growth rates of domestic credit to NFCs. For several NMS-10 (in particular the Czech Republic and Poland), the relatively low share of loans in total liabilities may be interpreted as an indication that there is room for further comparatively high growth of (domestic) credit to NFCs. This assumption is in line with what rather low ratios of private credit stock to GDP suggest (Backé and Zumer, 2005; Backé, Égert and Zumer, 2006; Arpa, Reininger and Walko, 2005) and also with the rather low outstanding volume of debt securities (see below). The stepwise transformation into loans of current liabilities in the form of domestic trade credit between companies, which is at present probably partly included in the position other accounts payable (see below), may lead to a larger share of loans in total liabilities. Such a transformation results in a “financialization” of the liabilities structure. The change in the structure of liabilities over the last three years for which data were available also constituted such a deepening of financial intermediation: The share of other accounts payable declined in most of the NMS-10, while in some countries we observe an increase mainly in the share of loans and in others an increase in the share of shares and other equity. NFCs in the Czech

Republic were the only exception, with a decrease in the share of loans and an increase in the share of other accounts payable.

The financial accounts available via Eurostat do not provide a structural breakdown of these loans. However, estimates on the basis of MFI (monetary financial institute) statistics and of data on the international investment position indicate that in most NMS-10, *domestic MFI loans* accounted for between 50% and 55% of the total loan stock, while *cross-border bank loans* made up between 20% and 33% and *cross-border intercompany loans* (i.e. loans related to FDIs) between 15% and 25%. These three subitems add up to almost 100% of the total loan stock in all NMS-10 except Estonia. The relatively high share of total cross-border loans (bank and intercompany loans) implies that in all NMS-10 the share of domestic MFI loans is lower than the corresponding share in the euro area. This suggests that nonfinancial corporations in the NMS-10 are to a significant degree already financially integrated with foreign sources of financing. Over the last three years for which data were available, the share of cross-border loans increased further in the Central European new member countries, while some substitution by domestic credit took place in the Baltic countries and in Cyprus.

Debt securities in total liabilities achieved a maximum share of about 2% in the NMS-10, which was considerably below the average share in the euro area. This may be interpreted as signaling a largely untapped potential for the corporate bond market. However, only two of the NMS-10 recorded a share below the euro area minimum. In some countries, like Hungary and Poland, a considerable part of debt securities are most probably held by foreign investors, as a substantial portion of debt securities was issued abroad (in foreign currency).

Table 5

Liabilities of NFCs in the NMS-10									
Country	Year	Loans	Debt securities (excluding financial derivatives)	Shares and other equity	thereof (in % of shares and equity): quoted shares	Other accounts payable (including financial derivatives)	Net other accounts payable (including financial derivatives)	Total financial liabilities	
		Stock items in % of total liabilities at year-end							in % of GDP at year-end
Czech Republic	2003	19.3	1.9	43.3	12.4	35.5	-0.2	180.0	
Estonia	2004	29.8	1.4	47.8	15.4	21.1	3.3	264.5	
Cyprus	2003	30.0	0.8	53.4	9.9	15.8	-1.9	277.4	
Lithuania	2004	20.6	0.1	60.7	32.9	18.6	5.1	157.9	
Latvia	2004	32.4	0.1	42.8	..	24.7	3.5	154.4	
Hungary	2005	23.7	0.5	55.2	18.4	20.5	-0.2	210.5	
Malta	..	..	..	..	..	..	..	..
Poland	2004	19.5	2.4	47.3	16.8	30.8	4.8	154.6	
Slovenia	2005	29.0	0.8	51.0	19.7	19.2	-0.4	228.8	
Slovakia	..	..	..	..	..	..	..	..
<i>Memorandum items</i>									
EU-12	2004	30.4	3.6	51.2	33.1	12.9	-0.3	227.6	
EU-12 median		32.6	3.7	50.2	30.4	10.3	-0.2	261.4	
EU-12 minimum		21.6	0.4	42.3	17.4	3.1	-3.2	143.1	
EU-12 maximum		47.0	7.6	59.2	63.9	22.2	4.9	387.7	

Source: ECB and Eurostat, Eurostat; OeNB calculations.

Shares and other equity in total liabilities were in a range from 43% to 61% in the NMS-10, similar to that in the euro area. Of the total stock of shares and other equity, *quoted shares* accounted for 10% to 33%, with the majority of countries close to the lowest corresponding ratio in the euro area (notwithstanding the rise of this share in the NMS-10 over the last three years for which data were available). This reflects – inter alia – the fact that in the NMS-10, FDI inflows in general and reinvested earnings in particular have been playing a more prominent role in building up financing via shares and other equity. In the NMS-10, total equity financing (including equity financing related to FDI) constituted a more important source of financing than total debt financing (via loans, including debt financing related to FDI and securities), as was the case in the euro area.

While in some NMS-10 the share of equity financing was higher than the euro area average, both the share of debt financing and the sum of debt and equity financing were lower in all NMS-10 for which data were available than the euro area average and in nearly all individual euro area countries. It follows that the main remaining source of financing – other accounts payable – played a more important role in the NMS-10 than in the euro area.⁶

3.2 Structure of NFCs' Financial Assets

The bulk of NFCs' *financial assets* in most of the NMS-10 consisted of *other accounts receivable*, mostly trade credit to other domestic companies or companies abroad (see table 6). The exceptions were Slovenia and, above all, Cyprus, where financial assets are dominated by shares and other equity, while other accounts receivable come only second, as in the euro area. Both these items accounted for 66% to 79% of NFCs' total financial assets in the NMS-10 and for 71% on average in the euro area. The clear majority of the remainder consisted of deposits in the NMS-10, with the exception of Estonia and Slovenia, where – like in the euro area – the share of deposits was about equal to the sum of *debt securities and loans*. The generally higher share of loans in the euro area (countries) reflects the fact that in the NMS-10, the stock of outward direct investment (and thus of related cross-border intercompany loans) is still considerably lower than in the euro area. Given the relatively high share of deposits in the NMS-10, the *short-term liquidity* ratio in the NMS-10 is mostly at or above the top of the range in the euro area. Looking at the change in the structure of financial assets over the last three years for which data were available, the decline in the share of other accounts receivable in most of the

⁶ *The share of other accounts payable in total liabilities ranged from 16% (Cyprus) to 31% to 36% (Czech Republic, Poland), with the share of its subitem trade credit ranging from 12% (Hungary) to 18% (Poland) to 28% (Czech Republic) of total liabilities. These values were considerably higher than in most euro area countries. In most of the NMS-10, cross-border trade credit (derived from the international investment position) amounts to only a small fraction of total trade credit, indicating that in these countries the subitem trade credit includes a considerable portion of domestic trade credit between companies. In fact, the statistical coverage and inclusion of domestic trade credit seems to be quite heterogeneous among EU countries. In this context, it should be noted that the definition and statistical coverage of the total liabilities aggregate influence any cross-country comparison of indicators relating to this aggregate, such as the shares of debt and equity financing, which decrease when we apply a more comprehensive definition of total liabilities. Looking at net other accounts payable, the Baltic countries and Poland recorded a high net payable position that is comparable with that of two outliers in the euro area, while the other NMS-10 recorded a net receivable position, as did roughly half of the euro area countries.*

Table 6

Financial Assets of NFCs in the NMS-10 and the Short-Term Liquidity Ratio									
Country	Year	Deposits	Debt securities (excluding financial derivatives)	Loans	Shares and other equity	Other accounts receivable (including financial derivatives)	Total financial assets	Net financial assets	Short-term liquidity ratio
Stock items in % of total financial assets at year-end							In % of GDP at year-end	Short-term assets to short-term debt	
Czech Republic	2003	17.5	2.6	5.4	12.0	61.7	104.3	-75.6	2.2
Estonia	2004	15.9	0.3	17.5	23.6	42.0	112.2	-152.3	1.9
Cyprus	2003	21.7	1.2	0.0	50.5	26.3	185.9	-91.5	..
Lithuania	2004	27.2	0.3	1.7	29.2	41.0	52.0	-105.9	2.9
Latvia	2004	18.8	0.6	8.8	24.6	46.5	70.3	-84.1	..
Hungary	2005	14.7	1.7	10.3	30.9	41.9	103.8	-106.7	1.6
Malta	..	..	..	..	..	..	..	..	..
Poland	2004	13.2	5.0	1.7	32.1	46.9	85.6	-69.0	1.7
Slovenia	2005	9.3	1.5	9.1	43.7	35.5	126.7	-102.0	0.8
Slovakia	..	..	..	..	..	..	..	..	..
<i>Memorandum items</i>									
EU-12	2004	11.5	3.0	14.1	48.9	21.4	141.0	-86.6	1.2
EU-12 median		15.3	3.2	10.1	49.2	18.9	146.6	-93.4	1.1
EU-12 minimum		4.9	1.8	0.6	25.0	-2.2	56.9	-128.1	0.7
EU-12 maximum		37.6	6.5	41.7	58.5	35.2	291.1	-64.0	1.8

Source: ECB and Eurostat, Eurostat, OeNB calculations.

NMS-10 (except Estonia and Cyprus) was accompanied by an increase in the share of the item shares and other equity or (in the Czech Republic) in the share of deposits.

3.3 NFCs' Financial Net Worth

Total *financial assets* (as a percentage of GDP) ranged from 50% to 130% in the NMS-10 (except Cyprus), which is still below the euro area average of about 145% (see table 6). Total *liabilities* (as a percentage of GDP) ranged from 155% to 280%, with only the two highest values (Estonia, Cyprus) being higher than the euro area median of 260% and the third-highest value (Slovakia) being close to the liabilities ratio in the euro area of 230% (see table 5). Regarding these ratios, all NMS-10 lay within the range of the euro area countries (except for the ratio of financial assets to GDP in Lithuania, which was slightly below the euro area minimum). Typically, they were below the euro area average, reflecting the fact that (1) a proper process of accumulating assets and liabilities in the NMS-10 started only with the systemic transition in the early 1990s, that (2) high inflation in the early phase of this transition reduced the value of existing stocks of assets and liabilities, and that (3) a cleaning of the balance sheets took place in many established corporations in most countries during the transition process. Over the last three years for which data were available, both the financial asset, ratio and the liability ratio increased in all the NMS-10 with the exception of the Czech Republic and Cyprus, where these ratios declined somewhat.

Net financial assets (i.e. financial net wealth) as a percentage of GDP in the NMS-10 were also within the euro area range (see table 6), except for the more negative value in Estonia (which resulted from a sizeable liability ratio). In three out of the remaining seven NMS-10 for which data were available, the ratio of financial net wealth to GDP was more negative than both the corresponding ratio in the euro area and the euro area median. In the last three years for which data were available, the financial net wealth ratio became more negative in five of the NMS-10, while it was stable in Estonia and Poland and became less negative in the Czech Republic and Cyprus. It should be noted that since total (financial and nonfinancial) assets are not necessarily equal to total liabilities, the size of financial net wealth does not allow definite conclusions on the size of the stock of nonfinancial assets, which has been created partly with the help of net financial liabilities. Rather, as outlined in the appendix, the difference between total assets and liabilities is equal to (total) net worth, which is usually different from zero.

4 Summary and Conclusions

This paper provides a first stocktaking of the available data on the financial situation and the financing of nonfinancial corporations (NFCs) in the ten new EU Member States (NMS-10). It focuses on comparing the situation in the NMS-10 with the status quo in the euro area. This paper does not intend to present an in-depth analysis of the underlying economic relations driving the financial results and the financing of NFCs in the NMS-10, but rather aims to provide a first descriptive overview.

We examined the structure of the stock of NFCs' liabilities and financial assets at the most recent year-end for which data were available and found that the ratios in the NMS-10 were generally within the range of the ratios in the euro area countries. Above all, this reflects a considerable degree of heterogeneity of NFCs' balance sheet structures across countries within the single currency area at present. However, we identified several differences between the NMS-10 and the euro area that tend to be typical, in particular when we look at the majority of NMS-10 countries compared with the euro area aggregate and the euro area median. First, the share of the total loan stock in total liabilities tends to be lower in the NMS-10, with a relatively high share of cross-border loans in total loans, reflecting – inter alia – high FDI levels in the NMS-10. The relatively low share of loans in most NMS-10 indicates that there is room for further high growth of credit to NFCs in these economies, possibly at the expense of the relatively high share of other accounts payable. Second, in all NMS-10, the share of debt securities was considerably lower than in nearly all euro area countries, signaling a largely untapped potential for the corporate bond market. Third, in the share of shares and other equity, quoted shares play a less important role in most NMS-10 than in all euro area countries. This again reflects, among other things, the more prominent role of inward FDI in the NMS-10. Fourth, on the financial asset side, NFCs in the NMS-10 tend to have a higher share of deposits (and hence a higher short-term liquidity ratio) than those in the euro area. Fifth, the ratio of liabilities and (net) financial assets to GDP in the NMS-10 was also within the euro area range. However, while the ratios of liabilities and financial assets

to GDP were typically below the euro area average, the ratio of financial net wealth to GDP in more than half of the NMS-10 was (somewhat) more negative than the corresponding ratio in the euro area aggregate.

Evaluating the financial results of NFCs in the most recent full year available,⁷ we found again that the range in the euro area was sufficiently wide to embrace the NMS-10 range for most indicators. As expected for catching-up economies, most NMS-10 had profitability ratios above the euro area average; in all NMS-10 for which data were available, profitability ratios were above the euro area minimum. By contrast, in all NMS-10, compensation of employees and employers' social contributions were below the euro area median and in some cases below the euro area minimum. The relatively higher share of gross operating surplus in total gross value added in the NMS-10 is in line with the data on macrocompetitiveness that show comparative unit labor cost levels in the NMS-10 to be far lower than those in the euro area. It may be partly explained by the presumably more pronounced impact of inward FDI on average productivity levels than on average wage levels.

Both net other taxes on production and the income and wealth tax burden were above the euro area minimum in all NMS-10 for which data were available except the Czech Republic and Slovakia, where net other taxes on production were negative (implying subsidies exceeding other taxes on production), but the income and wealth tax burden was clearly higher than the euro area median. In three of the six NMS-10 for which data were available, NFCs had a higher income and wealth tax burden ratio than the corresponding ratio in the euro area aggregate, while in the other half of these six countries, NFCs had a tax burden somewhat above the euro area minimum.

For property income, we found that on the one hand, the interest burden was typically lower in the NMS-10 than the euro area median (which is in line with the lower share of debt financing in total financing). On the other hand, net other property income constituted a rather negligible source of entrepreneurial income in the NMS-10 (as opposed to the euro area). This is attributable to the fact that the level of financial assets and that of shares and other equity on the asset side has been comparatively lower in these economies, as has the degree of intercompany linkages in general and that of outward FDI in particular.

Reflecting the great importance of inward FDIs in the NMS-10, reinvested earnings on FDI in the reporting country play a far more important role in the NMS-10 than in the euro area, while NFCs' distributed income was close to the euro area minimum. This implies – *ceteris paribus* – a strengthening of the NFCs' internal financing in these countries and of the overall catching-up process.

It is noteworthy that in the NMS-10, both net saving and gross saving by NFCs (which do not include reinvested earnings on FDI in the reporting country) were at or in most cases above the euro area average when measured as a ratio to GDP. At the same time, NFCs' investment-to-GDP ratio was at or

⁷ As mentioned in the introduction, we evaluated the situation also on the basis of a multi-year average (using the last four years available), so as to provide a robustness check. Its results confirm our main findings, which were obtained on the basis of the most recent year.

in most cases above the euro area maximum ratio in all NMS-10 (except in Poland), in line with the status as catching-up economies. Consequently, NFCs' net borrowing relative to GDP exceeded the euro area average (in most cases considerably) in all NMS-10 except Slovakia, where it was at the euro area average level, and Poland, where NFCs were even net lenders. Given the already relatively high net borrowing requirements in the NMS-10 (with the exception of Slovakia and Poland), the generally high level of net financial investment (except in Lithuania) signals that, on average, NFCs in the NMS-10 did not face serious constraints in incurring net financial liabilities. However, real investment was higher than net financial investment in all NMS-10 for which data were available.

All in all, we did not find evidence that the NMS-10 as a group are very different from the euro area countries as a group for many indicators of the financing structure and the financial situation of the NFCs. Still, we identified several differences between these groups that tend to be typical; they stem primarily from the ongoing catching-up process of the NMS-10 economies and from the more prominent role of inward FDI as well as the still minor role of outward FDI in the economic structure of the NMS-10.

Appendix

Basic Concepts of the System of National Accounts

Before comparing the data for the NMS-10 and the euro area, it may be useful to briefly outline the basic concepts of national accounts in a first step. The European system of national and regional accounts, as defined by Council Regulation (EC) No 2223/96 of 25 June 1996 (European Union, 2003), comprises a full sequence of accounts both for the whole economy and for the various economic sectors, e.g. nonfinancial corporations; they consist mainly of the production account, income accounts, accumulation accounts and balance sheets.

In the production account, gross value added of NFCs (their contribution to the gross value added of the whole economy) is derived as the difference of gross output and intermediate consumption.

In income accounts, gross value added constitutes the resource that feeds into a cascade of income accounts (generation, allocation and distribution of income). In the generation of primary income account, gross value added is used to cover the compensation of employees (including employers' social contributions), other taxes on production (i.e. indirect taxes other than VAT and import duties) less subsidies on production and the gross operating surplus. Next, primary income is allocated in two steps. First, the gross entrepreneurial income of the NFCs is compiled by adding up the gross operating surplus and resources due to property income received by the NFCs (interest, distributed income of corporations, reinvested earnings on FDI held abroad and rent) and deducting interest and rent paid out by the NFCs. Second, the balance of gross primary incomes (nondistributed income) of NFCs is derived by subtracting the distributed income of NFCs and the reinvested earnings on FDI in the reporting country of the NFCs from gross entrepreneurial income. Next, in

the secondary distribution of income account, the balance of gross primary incomes is transformed into gross disposable income by subtracting current taxes on income and wealth (mainly corporate income tax) and adding net other current transfers (mainly nonlife insurance claims minus premiums). The result is equal to gross saving, as consumption by NFCs does not exist. Thus, when subtracting so-called consumption of fixed capital, one gets net disposable income and net saving.

Accumulation accounts are the third group of accounts; they mainly comprise the capital account, the financial account and the revaluation account. In the capital account, net saving and net capital transfers – like investment grants received – are considered to change the NFCs' net worth, as they allow (real) assets to be built up without increasing (financial) liabilities. Above all, this funding is used for real investment, i.e. net fixed capital formation and changes in inventories. The balance of gross or net saving plus net capital transfers minus gross or net investment is called net lending (if it is positive) or net borrowing (if it is negative). In the financial transactions account – which is sometimes simply referred to as the financial account – the net incurrence of liabilities (plus net lending) allows for financing the net acquisition of financial assets (plus net borrowing).

Finally, the above-mentioned flow accounts are linked to the group of balance sheets (opening and closing balance sheet and changes in balance sheet). The NFCs' balance sheet comprises nonfinancial and financial assets as well as liabilities. All NFCs' liabilities are considered to be financial liabilities. The net worth of NFCs is the difference between assets and liabilities, while the difference between financial assets and liabilities may be termed the NFCs' financial net worth (or financial net wealth). Changes in the NFCs' net worth are caused by net saving (plus net capital transfers) and revaluation changes (in particular of tangible nonproduced assets, e.g. land, and of financial assets or liabilities).

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Statistical data on the monetary sector and on the international investment position, available on the websites of the national central banks of the ten new EU Member States, were used as an important complementary source of information.

A useful source of information on structural features of the economies of the new EU Member States is the website of The Vienna Institute for International Economic Studies at <http://www.wiiw.ac.at/e/home.htm>.