FINANCIAL SECTOR STRUCTURE AND ECONOMIC GROWTH: A FRESH LOOK WITH A FOCUS ON DENMARK

KEY FINDINGS

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Preamble

In 2016 the Center for Corporate Governance at Copenhagen Business School (Denmark) initiated a research project part of the research project “Nordic Finance and the Good Society” that aims to contribute to the debate about the future direction of the Danish financial sector, and whether (and how) it can create value for the wider society. This document is the management summary of an extensive research documented in a related discussion paper that was undertaken at the very beginning of the project in order to stimulate that debate.[1]

Key findings of the research project

In the aftermath of the recent financial crisis, commentators around the world started to question whether the financial sector actually creates such value. Relatedly, regulators became increasingly concerned about misbehavior in the financial sector and thus tightened the legal framework to restrict actors’ room for maneuver (e.g. the International regulatory framework for banks, also known as *Basel III*). However, faced with plummeting economic activity, governments around the world acknowledged that providing financing to the corporate sector is of first-order importance when it comes to enhancing an economy’s competitiveness and started various initiatives. The Capital Markets Union (CMU) initiative of the European Commission, which is a key pillar of Investment Plan within the “Jobs, Growth and Investment” priority, is a prominent example in this regard.

The research project provides an analysis of the economic role of the financial sector (and its actors) for economic development. In brief, its key results are as follows:

(1) Interested in the question whether the financial sector can generate value for society, it is important to identify possible “*channels*” and to define “*value”*. With respect to *channels* it is argued that the financial sector may add value to society through (at least) three different channels. First, directly by generating

[1] The discussion paper is available at https://sf.cbs.dk/nfgs_uk. Please refer to the discussion paper for all details.

gross value added (GVA). Second, by providing financing to the corporate sector and enabling the corporate sector to generate GVA. Third, by providing investment opportunities to private households, which in turn allow households to re-allocate and thus to optimize their consumption streams. Regarding *value*, the research adopts a relatively conservative approach and measures value in terms of economic development proxied by gross domestic product (GDP). Economic stability and firm growth are alternative measures used in the analysis.

(2) Economists consider entrepreneurial activities to be of first order importance for economic development free market economies. With plummeting growth rates in many developed economies in recent years, the quest for economic growth – and thus support for entrepreneurial activities – became a timely topic. Beside human capital and entrepreneurial talent, these activities require funding and are – by their very nature – risky. Accepting the fundamental principle that higher expected returns require higher risk-taking, the provision of (risk) capital and the associated allocation of risk becomes an important issue – for regulators but also society as a whole.

(3) A review of the existing literature suggests that an efficient financial sector structure improves capital allocation and risk sharing. In effect, it may provide ground for a prospering economy and thus may add value to society. To establish this link, the early literature has examined country-level data and found that there is a significant positive correlation between financial sector development and economic growth. Findings from recent country-level studies that apply more advanced econometric methods suggest that this correlation is causal indeed. Analyses using firm-level data support the view that financial sector development may fuel economic growth.

(4) Furthermore, the literature has provided evidence suggesting that market-based financing alternatives become more important with economic development. Relatedly, however, there are emerging concerns that there can be "too much of finance".

(5) When it comes to financing the corporate sector, the financial sector provides – broadly speaking – two categories of financing instruments to enterprises: debt

and equity. While both provide capital to firms, their economics with respect to risk sharing and bearing, but also with respect to dealing with moral hazard problems, are fundamentally different. Both, debt and equity, may be provided directly by the capital market, or indirectly by financial intermediaries. However, for debt instruments the latter case is more important. Specifically, banks play an important role here.

(6) An in-depth analysis of corporate capital structures with a focus on non-financial firms in Europe and the US reveals an increasing importance of equity financing in recent years. In addition, it suggests that in the aftermath of the financial crisis parts of the corporate sector started to operate with zero or negative net debt, in other words, began to act as net lenders. Moreover, there is some evidence that bank loans (and similar debt instruments) became less important, but market-based debt financing gained momentum.

(7) Further analyses suggest that firms face increasing uncertainty in product as well as in capital markets. Moreover, the asset structure has changed, with intangible assets gaining ground. This all suggests that long-term financing becomes more important and provides some rationale for the changes in capital structures discussed before. Finally, it is shown that firms engaged in innovation are more heavily financed by equity, and that more equity financing positively correlates with future firm growth. Overall, these findings make a strong case for initiatives aiming to encourage and stimulate (i) market-based debt financing and (ii) equity financing.

(8) Additional analysis at the country-level supports this view. Examining OECD countries, a positive correlation between financial sector size and economic development is documented. Thereby, financial sector size is measured as the aggregate of three parts: amount of credit to the private sector, size of the private bond market and market capitalization of the stock market.

(9) However, in further analyses, which differentiate between the three different categories, account for unobserved country heterogeneity, and concentrate on the dynamics of economic development, only measures of capital market size, and specifically the measure for stock market size, remain consistently correlated with economic growth. Advanced econometric tests even suggest

that the observed correlation is likely to be causal, indicating that stock market size positively impacts economic growth. Also, stock market is positively correlated with measures of economic stability. In effect, these results strongly advocate initiatives promoting market-based bond and equity financing for the corporate sector.

(10) In contrast, the analysis provides evidence that caution is warranted with respect to private credit volume. For OECD countries private credit volume is (consistently) negatively associated with economic growth and negatively with measures of economic stability.

(11) Examining the development of financial sectors across countries, it is documented that over the last 20 years financial sectors have expanded in most countries of the world. However, there is substantial cross-country variation. The Danish financial sector is comparable large when measured in the aggregate, i.e. by the sum of the following three parts: amount of credit to the private sector, size of the private bond market and capitalization of the stock market. Over the last ten years, the financial sector amounted to 273 percent of GDP for the average OECD country and to some 329 percent for the average EU15 country, while the Danish financial sector amounted to 463 percent of GDP. In other words, according to these measures the Danish financial sector is 41 percent larger than its average EU15 peer and 70 percent larger than its average OECD peer.

(12) The large financial sector size is explained by a relatively high private credit volume (194 percent of GDP in Denmark, compared to 136 percent within the EU15 and 116 percent within the OECD) and a relatively large bond market (204 percent of GDP, compared to 122 percent within the EU15 and 89 percent within the OECD). Thereby, the private credit volume in Denmark is skewed towards residential loans (and mortgages) that amount to 106 percent of GDP compared to 53 percent for the average EU15 country.

(13) With respect to the bond market it is documented that while the (relative) size of the Danish bond market has more than doubled over the last twenty years, it is dominated by banks. Corporates, in contrast, seem virtually absent.

Indeed some 99 percent of the bond market are attributable to financial institutions, leaving only marginal stakes for the corporate sector.

(14) A different picture emerges, when it comes to studying the Danish stock market. While it has grown over the years in terms of size, the size is still below average in the cross-country comparison. This pattern becomes particularly striking once one takes into account the dominant role Novo Nordisk plays in the Danish stock market. In addition, the use of the stock market, measured by the number of listed firms normalized for population or the proportion of listed firms among all enterprises, has decreased over time. Limited IPO activity and substantial delisting activities among previously listed Danish firms may rationalize this pattern.

(15) Overall, the previous analysis makes a strong case for promoting capital market-oriented financing solutions in developed economies. Additional analyses regarding Danish firms' (perceived) lack of financing as well as the development of the Danish corporate sector accentuate that the arguments put forward also apply to Denmark.

(16) As a result, there are a couple of challenges for market participants and regulators when it comes to decide about the future direction of the Danish financial sector. With respect to the stock market, the various actors must aim to ensure that the benefits of being listed, are not outweighed by the cost of going public, i.e. the cost of the IPO process in case the firm is not yet listed, and the cost of being public. To positively influence the listing decision of firms, the market must provide the appropriate infrastructure (trading facilities, equity research, broker services) to ensure a sustainable level of liquidity. Relatedly, regulators might want to carefully reconsider taxation of corporate profits and capital income. Traditional corporate tax codes penalize equity financing, which however is one of the major ingredients for corporate innovation. Also, high capital income taxation will translate into a high cost of capital for firms and thus low levels of corporate investments. Both arguments apply to the Danish tax code.

(17) Beyond initiatives directly aiming at promoting the stock market, there are also other issues that warrant attention. *First*, a healthy corporate bond market

may allow (some) firms to reduce their cost of capital. Thereby, the various actors (exchanges, investment banks, and investors) should carefully look at the experience and lessons learnt from other countries. *Second*, with high levels of private credit volume in Denmark, it seems advisable to carefully monitor the aggregate private credit volume and – again – to promote capital market oriented financing of firms.

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About the project and the author

The discussion paper and the management summary are part of a broad research project "**Nordic Finance and the Good Society**" initiated by the Center for Corporate Governance at Copenhagen Business School. The project aims to propose a fresh, new look at the Nordic financial sector with a view to finding a way forward towards growth and value creation. The project will focus on business strategies and governance, but will also address policy and regulation issues.

For more details please visit: https://sf.cbs.dk/nfgs_uk.

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