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Financial Inclusion, Regulation, and Education in Germany

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Abstract

Germany’s bank-based financial system provides a high level of financial inclusion, measured by bank outreach and use of financial services. However, the most vulnerable individuals and small enterprises in Germany tend to be excluded or credit constrained. The quality of financial inclusion is impaired by a low level of financial literacy, which is also concentrated among specific population subgroups. The high level of financial inclusion can be attributed to relationship lending by public savings banks, credit cooperatives, public promotional banks, and guarantee banks using the “housebank” model, and financial consumer protection and credit reporting regulations and institutions. Programs involving microfinance institutions have been stopped. Financial inclusion of consumers with the aim of responsible finance may be improved by implementing the right to a basic bank account with an overdraft facility and protection against attachment, establishing public credit bureaus, redirecting banking regulation toward the protection of borrowers in long-term credit relationships, and strengthening financial education in schools. To foster entrepreneurship and access to funding for start-ups and innovative SMEs, entrepreneurship education and the venture capital market need to be further developed.

JEL Classification: G21, G28, I22, O16

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1. INTRODUCTION

Financial inclusion is important for economic welfare and sustainable economic development. Broadening access of households and firms to financial services eases the financing of profitable investment projects, alleviating poverty and spurring economic growth. Access to finance may even be considered a basic need (Peachy and Roe 2006) and financial inclusion "can be broadly defined as an economic state where individuals and firms are not denied access to basic financial services based on motivations other than efficiency criteria" (Amidžić, Massara, and Mialou 2014: 5). Financial exclusion, in contrast, refers to difficulties in accessing or using financial services that are appropriate to the needs of individuals and that "enable them to lead a normal social life in the society in which they belong" (European Commission 2008). Exclusion may be voluntary if people do not use financial services because they do not need them—or think they do not need them—or because of cultural or religious reasons. If they choose not to use financial services because of a lack of financial literacy, financial exclusion is a consequence of a failure in the education system. Involuntary exclusion may result from efficiency criteria (e.g., insufficient income or high credit risk) or from market or government failures such as discrimination, lack of information, bad products, high prices, or weak contract enforcement (World Bank 2014; Amidžić, Massara, and Mialou 2014).

From a policy perspective, appropriate financial inclusion does not require that all individuals or firms have access to all products, but that they are able to access products that deliver real benefits. The experience with the global financial crisis, the microfinance crisis, and sharp increases in the number of over-indebted individuals in many countries has shifted the policy focus of German and international development cooperation away from increasing access to finance at any cost to responsible finance (Gross 2014). Responsible finance means "coordinated public and private sector interventions that encourage and assist financial services providers and their clients in improving their understanding and approaches, practices, and behaviors to create more transparent, inclusive, and equitable financial markets balanced in favor of all income groups" (BMZ/CGAP/IFC 2011: 1). It encompasses fair service delivery to enterprises and consumers. The major measures for achieving responsible finance for consumers are regulation and supervision of financial consumer protection, self-regulation of the industry, and financial education (BMZ/GIZ/IFC 2013). Following the guideline of a "human social market economy," the German government aims to provide equal opportunities to all citizens for a good life through freedom, rule of law, political stability, economic strength, and justice. A policy that moves humans into centre stage must make every effort to ensure that no financial actor, product, or place remain without adequate regulation (Merkel 2014).

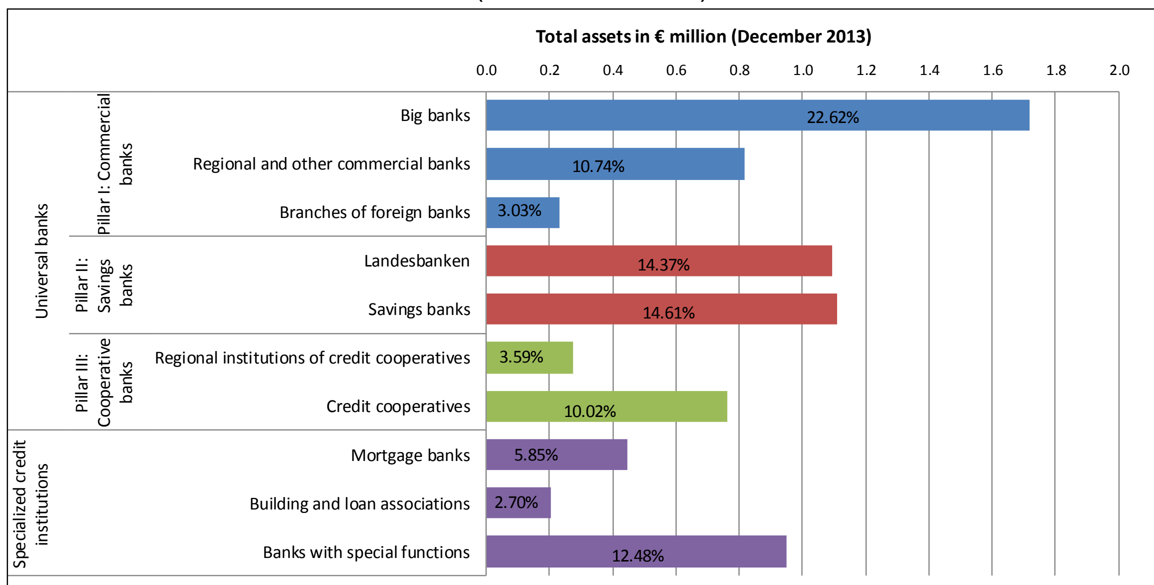
The present paper proceeds as follows. Section 2 provides an overview of the German financial system, Section 3 reviews the status of financial inclusion, Section 4 deals with financial regulation and supervision, and Section 5 examines financial education. Section 6 concludes with policy recommendations.

2. OVERVIEW OF THE GERMAN FINANCIAL SYSTEM

The German financial system is bank based. Bank credit to the private sector was 103.8% of GDP (versus 52.62% in the United States) in 2011 and stock market capitalization was 43.38% of GDP (versus 114.92% in the United States) in 2012 (Global Economy 2014). The German financial system is based on an original three-

pillar structure of universal banks, composed of private commercial banks, public savings banks, and cooperative banks. The share of public banks is much higher than in other European Union countries. In December 2013, private commercial banks accounted for 36.4%, public savings banks for 29%, and cooperative banks for 13.6% of total assets (see Figure 1). The commercial bank pillar comprises big banks, regional and other commercial banks, and branches of foreign banks. It is dominated by four big stock corporation banks, which, however, account for only 26.3% of the total assets of the whole banking market.[1]

Figure 1: Market Shares of Banking Groups, December 2013
(% of total assets)



Source: Deutsche Bundesbank (2014a); author's calculations.

The savings bank pillar comprises 417 municipal savings banks owned by cities and local authorities, and 9 Landesbanken owned by federal states and savings banks. Even though the state guarantees of the German savings banks were abolished in 2005, these banks are still in public hands. The municipal savings banks are subject to the regional principle that restricts them to their local communities. They focus on retail customers and have the public mission to provide safe and interest-bearing investment opportunities and access to loans to the local population and small and medium-sized enterprises (SMEs). Landesbanken are large wholesale banks for the savings banks. While their traditional role was to finance regional development and the international business of SMEs, today they are universal, profit-oriented banks active in international markets. The savings bank pillar cooperates as a group and provides safety to depositors by its joint liability scheme.

The cooperative bank pillar comprises 1,081 credit cooperatives and two central institutions. Credit cooperatives are oriented toward local retail customers, following the non-profit mission to serve the interests of their members (usually farmers or small businesses). Like the savings banks, they cooperate as a group and provide safety through a mutual guarantee system.

The remaining specialized credit institutions account for 21% of total assets and comprise 17 (private) mortgage banks, 22 (public and private) building and loan

[1] While Deutsche Bank, Unicredit Bank, and Commerzbank are highly internationalized and focus on large corporate customers and wealthy individuals, Postbank is oriented toward retail customers.

associations and 21 banks with special functions (public and private promotional banks). Moreover, there are 18 public guarantee banks not included in the banking statistics (Deutsche Bundesbank 2013) and 35 microfinance institutions (MFIs) without banking licenses (Bendig Unterberg, and Sarpong 2014).

Table 1 shows that retail banking markets are dominated by public savings banks. They provide 35% of all branches, 41% of consumer deposits, 31% of consumer loans, 43% of current accounts, 45% of customer bank cards, 42% of loans to domestic enterprises and 42% of loans to self-employed. Figure 2 summarizes the various ways by which savings are channeled to capital users by bank loans or micro loans.

Table 1: Market Shares of Banking Groups, December 2013

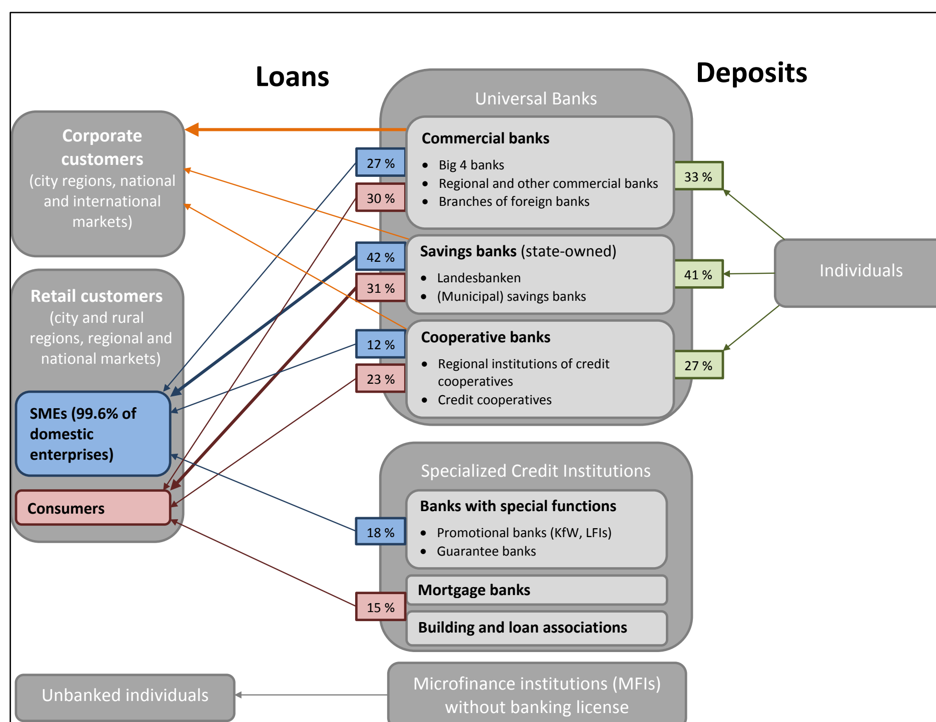
(% of total number of branches and retail banking volumes)

	Pillar I: Commercial Banks	Pillar II: Savings Banks	Pillar III: Cooperative Banks	Specialized Credit Institutions
Branches	27	35	33	5
Deposits from individuals	33	41	27	0.4
Loans to individuals	30	31	23	15
Current accounts	29	43	28	0
online thereof	38	34	28	0
Customer bank cards	28	45	27	0.2
Loans to domestic enterprises	27	42	12	18
Loans to self-employed	19	42	31	8

Note: Individuals are economically dependent individuals and other private persons.

Sources: Deutsche Bundesbank (2014a, 2014b); Deutscher Sparkassen- und Giroverband (2013b); author's calculations.

Figure 2: Financial Intermediation through the German Banking System



SME = small and medium-sized enterprise.

Sources: Deutsche Bundesbank (2014a); Deutscher Sparkassen- und Giroverband (2013b); author's own composition and calculations.

3. FINANCIAL INCLUSION

Financial inclusion has been measured by three dimensions—outreach, usage, and quality of financial services (Amidžić, Massara, and Mialou 2014: 8). Usual indicators of outreach are geographic or demographic penetration (Beck, Demirguc-Kunt, and Martinez Peria 2007), such as the number of branches per 1,000 square kilometers or 1,000 adults. Usual indicators of usage are the percentage of adults with at least one type of regulated deposit account, loan account, or insurance policy, and the percentage of enterprises with bank loans. Quality indicators may comprise financial literacy, disclosure requirements, dispute resolution, and the costs of usage (Amidžić, Massara, and Mialou 2014: 10).

Table 2 shows demographic branch penetration and usage of deposits, loans, current accounts, and customer bank cards by adults as well as usage of loans by domestic enterprises and self-employed. SMEs represent 99.6% of all domestic enterprises (Institut für Mittelstandsforschung 2014).

Table 2: Demographic Branch Penetration and Usage of Banking Services at the Three Banking pillars, December 2013

	Pillar I: Commercial Banks	Pillar II: Savings Banks	Pillar III: Cooperative Banks	Total
Number of branches per 1,000 adults	0.15	0.20	0.19	0.54
Deposits from individuals per 1,000 adults (€)*	8,159,923	10,218,734	6,628,368	25,007,025
Loans to individuals per 1,000 adults (€)*	4,741,870	4,940,952	3,594,531	13,277,353
Current accounts per 1000 adults	420.31	623.14	400.64	1,444.08
online thereof	303.38	274.21	220.81	798.40
Customer bank cards per 1,000 adults*	420.81	675.22	399.14	1,495.17
Loans to domestic enterprises per number of domestic enterprises (€)	65,742	101,754	29,154	196,649
Loans to self-employed per number of self-employed (€)	16,926	37,047	27,116	81,088

* Statistics for number of adults are from 2012

Note: Individuals are economically dependent individuals and other private persons.

Source: Deutsche Bundesbank (2014a, 2014b); Deutscher Sparkassen- und Giroverband (2013a); Statista (2012); Institut für Mittelstandsforschung (2014); author's calculations.

Branch penetration, usage of consumer loans, and deposits are above the EU and eurozone averages.[2] In 2011 the percentage of current bank accounts, life and non-life insurance, shares, bonds, and investment funds used was higher than the EU average, while the use of credit cards, mortgages, and personal loans was below the EU average (European Commission 2012: 13). In 2012, adults had on average 1.3 life insurance policies, above the EU average, and 5.4 non-life insurance policies

[2] Number of branches per inhabitants: 0.45 in Germany versus 0.39 in the EU and 0.49 in the eurozone (Deutsche Bundesbank 2014a; European Central Bank 2014; World Bank 2015; author's calculations). Deposits per inhabitant: €21,012 in Germany versus €18,434 in the eurozone (European Banking Federation 2013; Statista 2014; Deutscher Sparkassen- und Giroverband 2013b; World Bank 2015; author's own calculations). Consumer loans per inhabitant in 2013: €2,766 in Germany versus €2,098 in the EU (Crédit Agricole 2014; author's own calculations).

(Gesamtverband der Deutschen Versicherungswirtschaft 2013a, 2013b; Statista 2014; own calculations).[3]

The percentage of bank nonperforming loans to total gross loans was 2.7% in 2013, which indicates a high quality of lending by German banks (World Bank 2015). The high outreach of the German banking sector can be attributed to local savings and cooperative banks, which provide a higher branch penetration than commercial banks. Out of the three banking pillars, savings banks provide the most even regional distribution of branches (Conrad, Neuberger, and Schneider-Reißig 2009; Bresler et al. 2007). With their comparatively large branch penetration in less wealthy regions, they help to reduce regional economic disparities. Both savings and cooperative banks ease access to retail banking services by maintaining a larger number of branches per inhabitant in less densely populated regions (Conrad, Neuberger, and Schneider-Reißig 2009). The nationwide presence of the public savings banks increases the quality of financial inclusion by ensuring banking group competition each region.

The importance of bank branch penetration has declined due to the increasing use of online banking. In 2013, 42% of bank account transactions were performed online.[4] However, 48% of the German (versus 42% of the EU27) population did not carry out financial transactions over the internet due to security concerns (EC 2009: 18). In 2013, mobile banking was used by only 35% of the population in Germany, compared to 60% in the People's Republic of China, 55% in India, and 48% in Thailand (Bain & Company 2013: 22). Germany, the largest smartphone market in Europe, shows the lowest use of mobile banking (Comscore 2011). In 2013, 23% of German smartphone customers used their smartphones to access bank accounts, 16% for electronic payments, and 9% for credit cards (Statista 2013). The comparatively low mobile banking adoption rates in developed countries seem to be due to the high risks of online transactions due to cybercrime. In Germany, the number of cybercrime cases has been rising. Customer losses through phishing in online banking reached €16.4 million in 2013, around €240,000 per adult, [5] and mobile phones are especially attractive targets (Bundeskriminalamt 2013). Peer-to-peer lending platforms may provide cheaper loans in particular to professionals and self-employed individuals than banks (Stiftung Warentest 2013). However, the loan volumes and number of users are small. The need for "social lending" is smaller than in other countries because the market for consumer loans functions comparatively well.[6] As much as 88% of the German population (versus 81% of the EU27) does not engage in peer-to-peer file sharing with unknown persons because of security concerns (European Commission 2009: 18).

The above statistics do not reveal that many individuals are excluded from financial services. Using the new Household Finance and Consumption Survey across European countries, Le Blanc et al. (2014) find that in Continental Europe,[7] 11.6% of households do not have any credit card or credit line, 8.2% have been turned down or discouraged from asking for a loan, and 46% are likely to be credit constrained due to low assets. For Germany, the KfW start-up survey finds that business start-ups, low-income families, and small borrowers have difficulties in gaining access to loans. In

[3] In 2012, the number of life insurance contracts to total population ratio was 109% in Germany and 89% in the European Union (Insurance Europe 2014).

[4] Deutsche Bundesbank (2014b), own calculation.

[5] Statista (2012); own calculations.

[6] In the US, P2P lending is mostly used to refinance credit card loans. This is not necessary in Germany because consumers have access to installment loans (Ertinger 2013).

[7] Austria, Belgium, France, Germany, Luxembourg, Netherlands

2013, 17% of business start-ups were financially constrained (KfW 2014a). The likelihood of financial constraints was highest for start-ups out of unemployment, which typically have low equity and collateral (KfW 2008). In 2014, a fifth of enterprises that applied for loans did not get receive them, and 28% of small enterprises (sales up to €1 million) reported difficulties in gaining access to loans, a percentage nearly four times as high as for large companies (sales greater than €50 million). Enterprises younger than 6 years complained of increased difficulties in gaining access to loans. The main barriers are seen in the banks' higher demand for information on investment projects and business data as well as higher collateral requirements, and 60% of small enterprises and 69% of young enterprises are likely to be denied credit (KfW 2014b). The venture capital market remains underdeveloped compared for example to France, the United Kingdom, and the US, which constrains access of innovative SMEs to equity capital (OECD 2014: 28).

In 2009, 670,000 or 1% of Germans aged 15–79 had no access to a bank account. Because of the high bank account penetration level in Germany, these consumers are at risk of financial exclusion (Centre for Strategy and Evaluation Services 2010: 17). Access to bank services is related to the level of over-indebtedness and the socioeconomic characteristics of households. The share of over-indebted individuals[8] without a current account declined from 22.1% in 2004 to 10.5% in 2013, which seems to be due to the introduction of the so-called attachment protection account[9] in 2010 (Knobloch et al. 2014). Entrepreneurs with an immigration background are more often denied credit than natives (Bruder, Neuberger, and Räthke-Döppner 2011). Young entrepreneurs have to pay higher loan rates than older ones because of lacking liquidity and smaller businesses (Neuberger and Räthke-Döppner 2015). Female entrepreneurs apply less often for bank loans due to fear of rejection and are more often denied credit than male entrepreneurs (Stefani and Vacca 2014). However, there is weak evidence for discrimination, because these differences can be largely explained by differences in risk factors.

4. FINANCIAL REGULATION AND SUPERVISION

Government interventions are justified by market imperfections such as monopoly power, incomplete information, and transaction costs. Monopoly power excludes consumers by reducing quantities and raising prices. Incomplete and asymmetric information in credit markets causes credit rationing in particular of small and opaque enterprises. Micro loans may not be provided because they are not profitable due to the fixed costs of screening and monitoring borrowers. A lack of transparency of product characteristics and inadequate financial literacy of consumers impair the use of high-quality financial products. Financial inclusion in Germany is fostered by a variety of regulations, institutions, and public programs. The most important ones are discussed in the following section.

4.1 Regulatory and Supervisory Authorities

Banks and insurance companies are supervised by the Federal Financial Supervisory Authority (BaFin), which is responsible for their safety and soundness. BaFin also plays a leading role in implementing and enhancing financial consumer protection. The

[8] Over-indebtedness is concentrated around middle-aged consumers with below average levels of education, language skills, income, or assets (Knobloch et al. 2014: 23, 50).

[9] This "Pfändungsschutzkonto" account is exempted from the attachment of wages.

German central bank (Deutsche Bundesbank) focuses on price stability and financial system stability on a macro level, but is also responsible for cash supply, cashless payments, and banking supervision. Whereas BaFin and Bundesbank operate at the national level and supervise the big financial providers, the local commercial regulatory authorities (Gewerbeaufsichtsämter) control the work of financial services intermediaries with respect to admission requirements, reliability, and professional competences (Tiffe and Clerc-Renaud 2014).

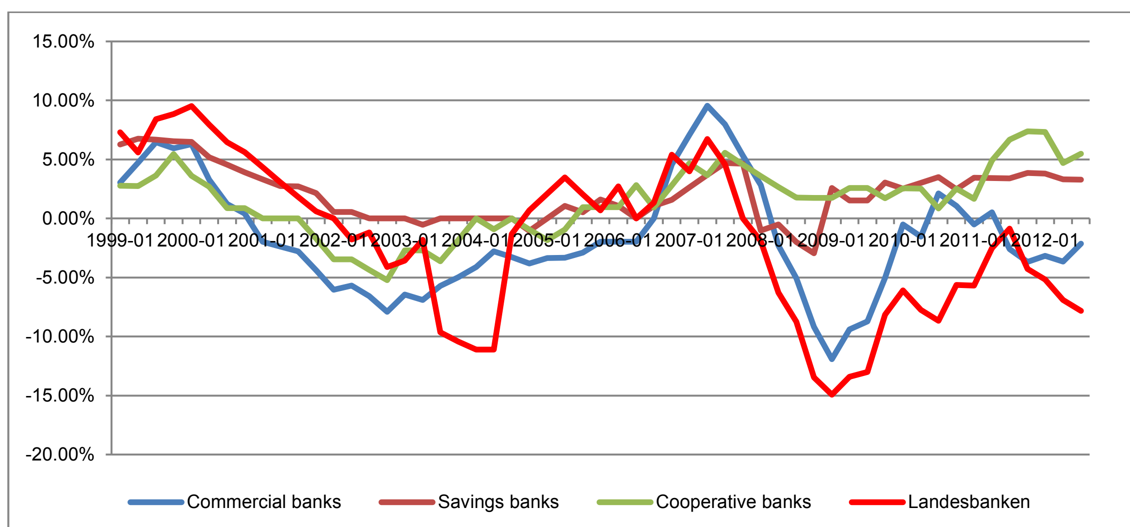
4.2 Public Savings Banks

Public savings banks, which dominate retail markets, ensure a high bank outreach and competition among the three banking groups in all regions (see Section 3). The benefits of relationship lending provided by such local banks arise from the use of soft information over time (Boot 2000). In Germany, enterprises usually maintain a close and long-term relationship with one main bank that provides them with long-term loans. Empirical studies show that relationship lending according to this German “housebank” model helps to reduce financing constraints especially for opaque SMEs by increasing credit availability, reducing loan rates and collateral requirements, and providing a kind of liquidity insurance over time.[10]

Small local banks stabilized the German economy during the financial crisis by increasing their long-term lending (*Economist* 2012; Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung 2008). Figure 3 shows that in 2008–2009, commercial banks and Landesbanken sharply reduced loans to domestic enterprises and the self-employed, while savings banks and cooperative banks increased them. Although the local savings banks are in public hands, they seem to perform better than private banks (Zimmermann and Schäfer 2010: 150). The largest losses during the financial crisis since 2007 accrued to the Landesbanken, a special state bank, and a large private mortgage bank. The local savings banks show high levels of efficiency. Even if their mission of providing financial services to all regions has its costs in terms of efficiency losses, these costs seem to be outweighed by the increase in banking group competition (Conrad, Neuberger, and Trigo Gamarra 2014). Therefore, they should remain in public hands. The Landesbanken, however, still need to be restructured, including through privatization and increased focus on their traditional role as central banks for the savings banks (OECD 2014).

[10] See Elsas and Krahnen (1998), Harhoff and Körting (1998), Lehmann and Neuberger (2001), Stein (2014), Neuberger and Räthke-Döppner (2015); for a literature review, see Degryse, Kim, and Ongena (2009).

Figure 3: Loans to Domestic Enterprises and Self-employed (without securities)



Source: Deutsche Bundesbank (2013); author's own calculations.

4.3 Promotional Banks

Promotional banks pursue economic, structural, and sociopolitical goals like supporting SMEs, agriculture, infrastructure, housing, and urban development. They are completely or partly state-owned and often backed by state guarantees. There are two federal public promotional banks (the KfW development bank and Landwirtschaftliche Rentenbank) and 17 regional promotional banks (Landesförderinstitute). A comprehensive system of public support programs aims to compensate for market failures, providing credit, mezzanine, and equity capital at favorable terms and conditions to consumers (e.g., home finance, student loans, and educational loans) and enterprises, in particular start-ups and SMEs.

The business model of promotional banks is organized as follows (VÖB 2014; Schäfer and Zimmermann 2008):

- Promotional banks are credit institutions subject to the German banking law and a public mission.
- According to the "housebank principle," promotional banks conduct most of their lending through refinancing the customers' business banks, which assess the creditworthiness and maintain the customer relationship. This ensures that promotional activities are subsidiary and neutral for competition and that the benefits of relationship lending by local banks are maintained. The housebank has to bear at least part of the credit risk. Direct investments of promotional banks in equity capital are conditioned on equal participations of private equity funds acting as lead investors.
- Customers' access to finance at favorable terms and conditions is reached both t hrough state guarantees, which reduce promotional banks' refinancing costs on capital markets, and state subsidies within special programs.

The loans include microloans below €25,000, provided within specific microloan schemes, as well as general business promotion programs and the StartGeld program of KfW (Bendig, Unterberg, and Sarpong 2012: 66). Empirical evidence shows positive effects of promotional banks' activities on access to finance of SMEs and self-employed professionals, economic production, employment, and growth. Despite

possible windfall gains or crowding out effects, their net benefits seem to be positive (Schäfer and Zimmermann 2008; Centre for Strategy and Evaluation Services 2012). The German Council of Economic Advisors has recommended an increasing use of public promotional banks along the German model and cooperation of such banks across countries to foster SME finance in Europe (Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung 2013: 223). However, improving access to funding for start-ups and innovative SMEs requires not only financial support, but also better exit possibilities for venture capitalists (OECD 2014: 28).

4.4 Guarantee Banks

To prevent profitable investment projects from not being realized because of insufficient collateral or equity, guarantee banks support credit and equity financing of enterprises and professionals by granting sureties and equity guarantees. They were created as self-help institutions of SMEs more than 60 years ago and are sponsored by industry associations, banks, and insurance companies. Today, 17 guarantee banks subject to the German banking law operate at the federal state level. By taking on securities to collateralize loans and guarantees to reduce the risk of equity investments, they ease the financing of SMEs by normal banks and private equity companies. The default risk is limited by counter securities and counter guarantees from the federal government and the respective federal state, which cover up to 80% of the risk (VDB 2014).

Empirical studies show positive effects of German guarantee banks on GDP, employment, firm growth, and the state's net financing position. Guarantees have less distortionary effects than investment grants and subsidies (Schmidt and van Elkan 2006, 2010; Neuberger and Räthke-Döppner 2008).

4.5 Microfinance Institutions

Microloans are provided by promotional banks, local employment agencies (job centers) and microfinance institutions (MFIs). Although there is an overlap, promotional banks target bankable entrepreneurs, MFIs aim to reach non-bankable entrepreneurs and job centers target people outside the job market. MFIs operate under various legal forms at the regional or national level without a banking license due to their small size (Bendig, Unterberg, and Sarpong 2014). In 2010, the microlending fund “Mikrokreditfonds Deutschland” was founded to ease access for start-ups, the unemployed, and the self-employed to loans with a volume up to €20,000. It is based on the following cooperation model (Deutsches Mikrofinanz Institut 2013b):

- MFIs recommend loans to banks and are responsible for all customer contact. They analyze loan requests, advise customers, monitor repayments, and realize the collateral of the loans during the duration of the contract.
- The loans are granted by a cooperating bank, which does not have any contact with the customers.
- The risk of default is shared between the MFIs and a guarantee fund, which remunerates the MFIs. The MFIs bear a first-loss liability of at most 20% of their total loan portfolio.
- The MFIs are accredited, trained, and monitored by the German Microfinan ce Institute (Deutsches Mikrofinanzinstitut) (DMI) to ensure a high quality of lending and responsible lending (Deutsches Mikrofinanz Institut 2013a).

All partners have to commit to a code of conduct based on the "Code of Good Conduct" of the EMN European Microfinance Network and the World Bank, which defines principles of responsible lending (Deutsches Mikrofinanz Institut 2013a). However, these are only recommendations and there are no legal bindings. Bank training for managers of MFIs is not necessary.

In 2010, the microloan fund started with €100 million provided by the German government and the European Social Fund.[11] Until 2013, the MFIs were remunerated by unit payments and a yearly gratification of 10% of all repayments minus losses. In 2014, the unit payments were abolished and the gratification was increased to 18% of repayments. The fund guarantees that the credit granting bank does not bear any credit risk. The loan volume is usually small at the beginning of a credit relationship and then increased by step after successful repayment. In 2013, the average loan amount was €5,700 (versus €18,000 for microloans provided by promotional banks). The duration ranges from a few months to 3 years (versus 10 years at promotional banks). The effective interest rate is fixed at 8.9%, above the interest rate of 3%–7% applied at promotional banks (Bendig, Unterberg, and Sarpong 2014). The loans are collateralized.

The goal to provide 15,000 microloans until 2015 was already reached in 2013 (Bendig, Unterberg, and Sarpong 2012, 2014). Of the microloans, 50% were used for existing enterprises, 32% for start-ups out of unemployment and 18% for other start-ups. In 2013, several MFIs had to exit the market due to high defaults (Bendig, Unterberg, and Sarpong 2014).[12] The microloan fund cooperated with GLS Gemeinschaftsbank, a cooperative bank oriented toward social and ecological goals. However, at the end of 2014 the GLS bank cancelled its cooperation with the microloan fund. On 5 December 2014, microlending by MFIs was stopped.[13]

Evaluations of the success of the microloan program in reducing poverty are missing so far. Even if the goal to increase the number of microloans has been reached, this may not help the customers to get out of poverty because the loans are not used productively, are too small, or are too short term. All existing evaluations of microfinance in various countries show that household outcomes remain unaffected and microfinanced businesses fail to grow or often do not survive for long (Banerjee, Duflo, and Hornbeck 2014). Reviewing the international developments with the growing indebtedness of MFI clients, Deutsche Bank finds that "a consensus is now emerging that problems are rooted … within the characteristics of the microfinance industry" (DB Research 2012: 1). Generally, microlending outside the banking sector is inferior to normal bank lending due to several reasons:

- By targeting the unbankable, microlending reduces the pressure to force banks to provide services to all individuals. The goal to increase the number of loans to the unbankable addresses the symptom of credit rationing rather than the cause of exclusion from bank accounts.
- Microlending does not use the benefits of relationship banking through long-term customer relationships and provision of both lending and deposit services to the same customer.
- The philosophy of lending to people without a bank account neglects the

[11] Its predecessor, the "Mikrofinanzfonds Deutschland," which operated from 2006 to 2009, was worth only €2 million (Bendig, Unterberg, and Sarpong 2014).

[12] The default rate varied between 3% and more than 20% across MFIs (DMI 2014).

[13] http://www.mikrokredit.net/aktuelles/ (accessed 4 February 2015).

> important role of savings for economic development. The success of the community-based savings and loan system, which started to be developed in Germany in the late 18th century with the savings banks and little later with the savings and loan cooperatives of Raiffeisen and Schulze-Delitzsch, shows that the wealth of an economy depends on the accumulation of savings to be channeled to productive investments through loans. Microlending, in contrast, is based on the myth that just providing money or property rights is a blessing for the poor (Reifner 2011: 407).

4.6 Financial Consumer Protection

Responsible finance for consumers includes three pillars: regulation and supervision of financial consumer protection (FCP), self-regulation by financial institutions, and financial education. The most important pillar is FCP through adequate regulatory framework and consumer associations. FCP has a more than 100-year-old tradition in the form of the German Civil Code, which established standards for disclosure, advice, and protection against usury. Within the last decades, international (EU) consumer protection regulations have been incorporated into this law, while new codes have been established for insurance and most of the capital market regulations oriented toward all clients. A current trend driven by EU law is to set common standards for all financial services, such as standardized pre-contractual information, product explanation, extended liability of the provider in case of mis-selling, and the duty of intermediaries to have liability insurance. While this helps consumers e.g., by increasing transparency and closing gaps in unregulated capital markets, a drawback of these EU regulations is that they focus on the sale of financial services, i.e., the time before and during the contract is agreed, while duties during the whole life time of the users, such as access, exploitation, cancellation, usury, debt enforcement, adaptation, and continuity, are neglected (Tiffe and Clerc-Renaud 2014; Nogler and Reifner 2014: 41). To ensure responsible finance, capital users need to be protected from irresponsible lending in long-term credit contracts. To this aim, the European Social Contract Declaration has laid down principles of social long-term contracts in consumer credit law (EUSOCO 2014) and the European Coalition for Responsible Credit has set up principles of responsible credit (European Coalition for Responsible Credit 2014).

Regarding the institutional landscape, publicly financed consumer associations in each federal state play an important role in FCP. Organized in the Federation of Consumer Associations (vzbv), they offer general financial advice and legal aid for consumers and conduct market surveillance and campaigns. If they have the opinion that a provider's practice is against the law they can file a lawsuit. German consumer associations have launched several claims against major insurers and banks (Tiffe and Clerc-Renaud 2014).

In almost every city and region consumers have access to public debt advisor organizations, which provide free help and legal aid, in particular to over-indebted individuals. Debt advisor organizations are organized in nationwide associations that formulate demands on politicians, produce publications for prevention, and organize training for debt advisors, among other functions. Debt advisor organizations and consumer associations work closely together (Tiffe and Clerc-Renaud 2014: 23).

The legal enforcement of consumer protection can be achieved by administrative enforcement and individual or collective claims against financial providers. Another good practice for FCP in Germany is the active role of state-subsidized media in providing general, neutral financial advice, conducting tests, investigating prices,

publishing warnings about mis-selling practices, and explaining new technical standards to consumers, among others (Tiffe and Clerc-Renaud 2014).

4.7 Right to a Basic Bank Account

So far, banks in Germany are not bound by law to provide basic bank accounts to all citizens. In 1995, they signed a voluntary agreement to provide a "giro account to all," which, however, did not prevent exclusion of many individuals from a bank account and was followed only by public savings banks in some federal states (*Handelsblatt* 2014). In July 2014 the European Council adopted Directive 2014/92/EU on the comparability of fees related to payment accounts, payment account switching, and access to payment accounts with basic features. The directive prescribes that consumers should be guaranteed access to basic payment services, including the facility to place funds and withdraw cash. To include unbanked vulnerable consumers, payment accounts with basic features should be offered free of charge or for a reasonable fee (EUR-LEX 2014). EU member states have to implement the new rules into national law by 2016. However, this will not shield consumers against liquidity risk, because they will still have no right to an overdraft and still face the risk that assets are attached in the case of illiquidity. Therefore, the definition of a basic bank account should be extended with the provision of overdraft credit and protection from attachment of a minimum sociocultural subsistence. Governments could provide for affordable bank accounts by giving incentives to banks to offer such facilities either through a fund, by central distribution, or through advantages. A credit line insured or guaranteed by a public entity could eliminate payday or mobile phone loans (Reifner 2012).

4.8 Credit Reporting System

Credit reporting as a system for collecting, sharing, and using relevant data for making or managing credit agreements fosters financial inclusion by allowing creditors to evaluate risks more effectively and empowering consumers by building credit reports. It comprises individuals as data subjects, creditors as data providers, and users and credit bureaus as collectors, processors, and suppliers of data. Credit reporting has to be regulated to ensure responsible lending and at the same time respect privacy and data protection (CEPS-ECRI 2013).

In international comparison, Germany has reached the highest depth of credit information and 100% private credit bureau coverage, but only a 1.3% public credit bureau coverage as a percentage of the adult population (World Bank 2015). It has a long tradition of private credit bureaus, which have been established as self-help organizations of creditors in local markets. Only large loans, exceeding €1 million, are registered with the public institution, the German Central Bank, which then informs the banks about the total indebtedness of the respective borrowers. Small loans by SMEs or individuals are registered by private credit bureaus, which do not need a license. In 2013, the German association of credit bureaus comprised eight institutions. The market is dominated by Schufa Holding (owned by banks and trade firms), followed by Creditreform Boniversum. Their major services are providing credit scoring information, carrying out identity checks, and fraud prevention. Credit scoring is important for financial inclusion because German banks are obliged by law (MaRisk within the Basel III framework) to base their loan pricing on credit scores.

While German credit bureaus are subject to some of the strongest data protection laws, their credit scorings are not transparent and are often unreliable. Consumers are entitled to receive personal credit reports, which enable them to review and verify data

stored by Schufa. However, Schufa's credit scoring information tends to be flawed or incomplete. The scores are not accurate because they are based on false data and it is unclear how they were calculated. The credit bureaus treat their scoring algorithms as business secrets. To protect consumers from false credit scorings, which may exclude them from financial services and a normal life in society, independent or public credit bureaus are necessary (Korczak and Wilken 2009).

5. FINANCIAL EDUCATION

5.1 Necessity, Concept, and Goals of Financial Education

The need for financial education of consumers has grown because of increased market opportunities with risk-shifting to consumers. In Germany, this is due to three developments: (1) the creation of a more flexible labor market, (2) contraction of the welfare state, e.g., through the privatization of retirement pensions, and (3) demographic change, in particular population aging, which increases the need for private pension insurance. While the increase in financial opportunities may provide new chances to get out of poverty, financial education is particularly crucial for the poor to gain access to financial services and shield against adverse shocks (Reifner and Schelhowe 2010; Reifner 2006b).

Financial education should provide individuals with the knowledge and skills to become questioning and informed consumers that are able to manage their own finances (Reifner 2006b; Financial Services Authority 1999). Its goals are financial knowledge, financial literacy, and financial capability, which should include the knowledge, understanding, and social competence for a critical evaluation of financial services. Since poor households who cannot save can only help themselves by using credit, financial education should focus on the productive use of credit rather than savings and investments (Reifner and Schelhowe 2010). The question of the knowledge needed for financial education is highly controversial. Recent US studies show that financial education may fail to improve the quality of financial decision making (Ambuehl, Bernheim, and Lusardi 2014) or lead to worse decisions by consumers, because it seems to increase confidence without improving ability. "The search for effective financial literacy education should be replaced by a search for policies more conducive to good consumer financial outcomes" (Willis 2008: 198).

In a broader sense, financial education also comprises entrepreneurship education, such as providing individuals with the knowledge to write business plans and start or run a business. Since the self-employment rate in Germany is comparatively low, the need for entrepreneurship education is high.[14]

5.2 Status of Financial Education

Financial literacy has been measured either by asking respondents to self-assess their financial sophistication, or by testing them on detailed and more reliable questions on finance (Jappelli 2010; OECD 2005a). Often there is a substantial mismatch between self-assessed and actual knowledge (Lusardi and Mitchell 2014). A representative survey of individuals in 2009 showed that only 52% of the German population self-assessed their financial knowledge as good or very good. More than a quarter of the population did not understand basic economic concepts, nearly three-quarters had

[14] In 2013, the self-employment rate was 11.2% in Germany and 16.5% in the EU 27 (OECD 2015).

problems understanding conversations with financial advisors, and nearly one-third did not dare to ask appropriate questions (Comdirect 2009). In a similar survey conducted in 2010 only 39% of the German population assessed themselves to be well or very well informed about financial topics, 52% to have only some information, and 7% to be badly informed. Only one-tenth regularly compared the prices of banking products, while more than a quarter never made such comparisons (Comdirect 2010).

Using data from the savings and pension insurance survey SAVE 2009, a representative German household panel, Bucher-Koenen and Lusardi (2011) found a moderate level of financial literacy, measured by answers to three simple questions on understanding interest rates, inflation, and risk and diversification. Of the respondents, 37% were not able to answer at least one of the questions. The level of financial literacy depends on age, gender, education, labor market status, and residence in East versus West Germany. Individuals with higher education levels were shown to have higher knowledge of basic financial concepts than the less educated, and financial literacy was particularly low among the less educated, unemployed, and retired individuals in East Germany. Individuals with lower financial literacy were found to be less likely to plan for retirement and therefore less likely to fill the gap in retirement income.

Financial literacy varies substantially across countries, as measured by senior business leaders' evaluation of economic literacy among the population from 1995 to 2008. Germany has an above average financial literacy score, but ranks only 23rd out of 54 countries (Jappelli 2010). The level of financial literacy depends on educational achievement (measured by PISA test scores and college attendance), the share of the urban population, and the existence of mandated savings in the form of social security contributions. Inhabitants of countries with more generous social security systems (such as Germany in the period investigated) are generally less literate, consistent with the hypothesis that the incentives to acquire financial literacy are related to the amount of resources invested in financial markets.

An online survey of adults in 12 European countries in 2013 found that Germans had the lowest levels of financial education. The share of respondents that reported to have never received financial education was 53% in Germany and Spain, followed by 52% in the United Kingdom. As much as 78% Germans said they wanted financial education at school, but only 18% received it (ING-DiBa 2013). However, the results of this study are questionable, because the study relies on individuals' self-assessments of financial education, which is not defined and may be perceived differently in different cultural and educational environments.

A more detailed survey on financial literacy was conducted in 2010–2011 by the OECD International Network on Financial Education in 14 countries across 4 continents, including Germany (Atkinson and Messy 2012: 6). In no country could more than 70% of the population answer at least 6 out of 8 questions on financial knowledge. Only 22% of the German respondents had a household budget and 96% indicated they had not borrowed to make ends meet (Atkinson and Messy 2012: 8). However, the overall indicator of financial literacy is above the cross-country average (Atkinson and Messy 2012: 10). All in all, the evidence shows a low level of financial literacy in Germany, which is also concentrated among specific population subgroups. However, these results have to be interpreted with caution because financial literacy may be measured with error, depending on the way questions are worded (Lusardi and Mitchell 2014).

Also the level of education on entrepreneurship in Germany seems to be low compared to other developed countries. Although the federal government offers support for entrepreneurship education at universities and for researchers and students to start

businesses, teaching techniques need to be improved. "For example, in eastern German universities surveyed by the OECD, business plan writing is the most common learning tool, while more experience-based teaching methods—such as visits to companies, use of social media, self-learning exercises, developing prototypes, and learning about enterprise failure—are not so frequent." (OECD 2014: 28).

5.3 Financial Education in Schools

Suppliers of financial services have market power and informational advantages over consumers, for whom financial products are complex and difficult to understand. These market failures provide a rationale for action by governments to improve financial education, which should start at school or as early as possible in life (OECD 2005b). School teachers have been identified as core gatekeepers of consumer education in society. Among five sources of consumer education—family and friends, school, adult education, consumer organizations, and TV programs—schools have been found to be the most effective and accessible form of intervention (Reifner 2006a).

So far, the teaching curricula developed by the ministries of the federal states do not explicitly stipulate the teaching of financial education. In practice, teachers partly include aspects of financial education in business administration or economics classes, which, however, are mostly not mandatory for students and appropriate teaching materials are lacking (Reifner 2006a). In 2013, the Conference of Cultural Ministers ruled that consumer education has to be integrated and enforced in schools. This includes financial education about conscious use of money, financial products, financial investments, types of loans, private insurance, retirement provision, marketing, and consumption. To achieve this goal, schools may cooperate with external partners such as public pedagogical institutes, consumer ministries and associations, universities, non-governmental organizations, industry associations, and enterprises. Thereby, the principle of neutrality has to be obeyed. Consumer education has to be integrated into one or several school subjects and has to be tailored to age and target groups (KMK 2013). These rules have started to be implemented with various approaches at the level of the federal states. While they are an important step to improving financial education in schools, they are based on a market-oriented concept of consumer education, which does not take into account that pupils have to learn to critically reflect the existing economic circumstances. Moreover, they open the door to financial companies to cooperate with schools with the commercial aim to gain pupils as future customers.

5.4 Providers of Financial Education

Financial education is provided by non-profit organizations as well as the financial services industry. Consumer associations evaluate financial education material with help by independent scientists. The results are published on the Materialkompass website, financed by the Federal Ministry of Agriculture, Food and Consumer Protection, which can be used as a path finder through the various financial school projects in Germany (Verbraucherzentrale Bundesverband 2014).

The German government statutory pension insurance scheme offers adult education courses on public pension systems, but fails to provide needs-based consumer education. Various welfare and consumer advice organizations engage in financial education programs to prevent over-indebtedness, however they are critical of credit take-up, being based on the philosophy of savings. The non-profit institute for financial services, iff, provides school projects where consumers can learn to identify and meet

their financial needs and to be critical of the market for financial services. A basic principle is that instead of bankers entering the schools, students should enter the banks to rehearse the advice sessions they might encounter later in life and learn to pose practical questions (Reifner and Schelhowe 2010). The iff financial education school projects[15] have been acknowledged as successful projects in Germany by the OECD and evaluated as one of the best consumer education projects by the Materialkompass of the German Federation of Consumer Associations.

The financial service industry contributes a wide range of information and teaching materials for financial education. Its motivation is to comply with the OECD's corporate social responsibility principles, in which consumer protection and education play an important part. The focus is on explaining products and their usage. Some material is based on home economics and emphasizes budgeting and savings, like the program of the German Savings Banks Association. Others, like private commercial banks promote the approach of economic education. Deutsche Bank offers practical economic and financial information to schools through its financial literacy initiative and employee engagement, where employees provide information about investment products and retirement funds, the global financial system, and the causes of the recent crisis (Deutsche Bank 2014). "My Finance Coach," a financial education school project financed by 30 enterprises, including large financial services companies, has already made 3,500 school visits in less than 4 years.

Already, in 2006, 88% of 15-year-old children in Germany went to schools using teaching content influenced by commercial enterprises. All federal states of Germany welcome private suppliers to their schools. Of the largest German companies, 15 provide teaching materials beyond economic topics. While the number of free online materials for education in Germany has reached 882,540 (Verband Bildungsmedien 2014), the total number of financial education programs is unknown. Regular evaluation through Materialkompass shows that many of these offers are biased ideologically or even contain advertising. In some cases, school materials were used directly to promote providers and their business models. Financial education initiatives by financial service providers in schools have been criticized as a form of lobbying that should not be accepted in schools. Schools should be free of advertising and influence of providers. Financial education initiatives may only be symbolic measures to avoid other forms of regulation (Tiffe and Clerc-Renaud 2014: 28). Their positive impacts for strengthening consumers are still to be seen.

6. CONCLUSIONS AND POLICY RECOMMENDATIONS

The bank-based financial system of Germany provides a high level of financial inclusion, measured by average bank outreach and use of financial services. However, the most vulnerable, such as low-income, unemployed, or over-indebted individuals who need loans or bank accounts to start a business and participate in economic life, tend to be excluded, and small enterprises are often credit constrained. The quality of financial inclusion is impaired by a low level of financial literacy overall, which is also concentrated among specific population subgroups such as the unemployed and less educated. At the same time, the need for financial education has grown due to the decline of the German welfare state.

Key lessons can be learned from the German experiences, particularly for less-developed countries. The German banking sector is comparatively strongly

[15] "Schülerbanking" ("pupils' banking") and "Wissen rechnet sich" ("knowledge counts").

differentiated, with four big banks holding a market share of only 23% and retail markets being dominated by state-owned savings banks. A community-based system of local savings and cooperative banks, which evolved more than 200 years ago, has been successful in accumulating savings and channeling them to productive investments by individuals and SMEs. The sector is based on relationship lending or the “housebank” model, where soft information is gathered through direct and repeated contact with the same borrower. Government interventions have proven successful in correcting market failure. The comparatively high level of financial inclusion can be attributed to municipal public savings banks, public promotional banks, and guarantee banks using the “housebank” model, financial consumer protection, and credit reporting regulations and institutions. Programs involving microfinance institutions without a banking license have been stopped. The use of online and mobile banking is comparatively low because of security concerns and should not be fostered because of growing consumer losses due to cybercrime.

To improve financial inclusion with the aim of responsible finance, the following measures are advisable:

(1) The three-pillar system of universal banks and the system of specialized promotional and guarantee banks should be preserved. Local savings banks subject to a public mission and regional principle should remain in public hands because they ensure a high bank outreach, usage of deposits and loans, as well as banking group competition. They contribute to equal living standards across regions and have stabilized the German economy during the crisis. Banking regulation and supervision should take account of the diversity of bank business models and the role of local banks to improve credit access by relationship lending. Promotional banks and guarantee banks may be increasingly used to ease access to finance for start-ups and small enterprises.

(2) Special microfinance institutions targeting unbanked individuals are rendered unnecessary if access to banking services for all is reached more directly by other measures (see in particular (3)). They may even be harmful by increasing the over-indebtedness of the poor.

(3) The right to a basic bank account still has to be implemented. It should be coupled with the right to overdraft credit and protection from attachment of a minimum sociocultural subsistence. Governments could provide for affordable bank accounts by giving incentives to banks to offer such facilities. A credit line insured or guaranteed by a public entity could eliminate payday or mobile phone loans.

(4) To protect consumers from false credit scorings by private credit bureaus, independent or public credit bureaus should be established.

(5) Financial education should be mandatory at schools. It should focus on the productive use of credit and provide the competence for a critical evaluation of financial services rather than product knowledge. To ensure the high quality of financial education programs without influence from the financial services industry, external evaluations by independent scientists have to be strengthened. However, financial education is no panacea and should not be used as a substitute for the regulation of financial service providers.

(6) To promote entrepreneurship and access to funding for start-ups and innovative SMEs, experienced-based learning methods should be adopted in entrepreneurship education, and the venture capital market needs to be further developed.

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