

**The state as an intermediary to foster long-term investments:  
the case of the targeted European savings account**



**THE STATE AS AN INTERMEDIARY TO  
FOSTER LONG-TERM INVESTMENTS:  
THE CASE OF THE TARGETED  
EUROPEAN SAVINGS ACCOUNT**

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## MANAGEMENT SUMMARY

The economic development of the European Union is hampered by insufficient private and public long-term investments. This weakness is seen as a rationale for state intervention, and numerous projects are discussed and implemented to find new ways to mobilize private capital for long-term investments. Examples are the Investment Plan for Europe, the EU Project Bond Initiative, the Capital Markets Union, or, on a national level, the investment plan of a commission appointed by the German Federal Minister of Economic Affairs. For an economic evaluation of this policy approach, the following paper concentrates on the proposal of a targeted European savings account in the European Commission's Green Paper "Long term financing of the European economy" from March 2013.

The first result is that the rationale for state intervention stands on a weaker basis than it seems: We fail to establish a dependable link between the ongoing depression of long-term investments in some European countries and a market failure in the market for the financing of such investments. Investment capital is abundant. Public long-term investments are restrained due to political priorities in favor of short-term consumption, and private long-term investment suffers from the weakness of the real economy and an adverse political environment.

Secondly, the state can only imperfectly perform the tasks of a financial intermediary, i.e., delegated monitoring, liquidity provision and delegated contracting. In particular, it cannot enter into the specific long-term relationships that are important for the financing of SMEs at least in some European countries. Thus, functioning and valuable credit relationships might get crowded out by a state-sponsored credit business of inferior economic value. Both the costs of the subsidy and the potential losses from increased credit risk would have to be covered by the tax payers.

The fact that the targeted European savings account and similar approaches like the "citizens' fund" as a component of the German investment plan intend to mobilize retail investors' money creates special concerns. Such subsidized accounts would crowd out the common bank deposits and thereby weaken the stability of the refinancing base of retail banks. Risk discipline is reduced, and the likelihood of panic runs increases. Overall, this could lead to a significant increase of systemic risk.



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# 1. THE EUROPEAN CRISIS AND THE FINANCING OF LONG-TERM INVESTMENTS

The process of European integration evokes great hopes for the future of Europe. However, since 2008, the EU-countries stumble from one crisis into the next. And in particular the government debt crisis has severe political repercussions that endanger even the political stability of the European Union. The burden of this ongoing crisis might be greatly diminished if the European economies would return to a sustainable growth path. At the beginning of the crisis, European countries tried to attain this result through an expansion of public spending. In many countries this did not work, and the increased levels of public debt made their own contribution to the crisis. Today, the ECB policy of almost unlimited liquidity and extremely low interest rates can also be understood as supportive to economic growth. However, to make growth sustainable and prevent consumption-based short-term bubbles would require an increase in long-term private and public investments. Unluckily, this increase is not coming forth.

Consequently, European governments and the European Union take a growing interest in the large backlog of long-term investments they observe. There is a general agreement that this backlog is not due to insufficient private investment capital. In fact, this capital is abundant. Therefore, the Green Paper of the European Union under the title of “Building a Capital Markets Union” focusses on the means to overcome the different obstacles that actually obstruct the financing of start-ups, SMEs, and long-term projects (COM (2015)). A crucial role is attributed to the European Investment Bank managing the European Fund for Strategic Investments, backed by 16 billion Euro of guarantees from the European Union. An earlier Green Paper went even further with regard to the degree of potential state intervention. It proposed, amongst many other measures, the creation of a targeted European savings account to mobilize retail deposits and channel them into long-term public and private investments (COM (2013a)). In Germany, an expert commission appointed by the Federal Minister of Economic Affairs proposed to create a “Bürgerfonds” (i.e., “citizens’ fund”) to mobilize retail investments for long-term public and private projects (Expertenkommission (2015)).

The activities of state development banks like the EIB or the respective national counterparties is nothing new, although the new European programs hoist them to a new level that might also be problematic in a market economy. The two last-mentioned concepts contain an additional component, i.e., the mobilization of private capital that in normal times would most probably end up as retail deposits in banks. The state becomes a financial intermediary that takes over the role of a conventional bank attracting deposits and allocating them to the presumably best

projects. In this sense, an assessment of such proposals must take the effects on both sides of the banks' balance sheets into account: Will the state be able to allocate capital in a better way than the financial system would do without state intervention, and what are the consequences if the state relies on retail deposits to refinance these activities?

In the following, we focus on the proposal for a targeted European savings account in the Green Paper from 2013 to evaluate the case for state intervention of the described type. However, many of the arguments do also hold for the other concepts, as the state at least partially supplants banks in one of their core economic functions. Seemingly, financial intermediation has become too important for the European project to leave it to the private markets. But can the state really do better?

## 2. THE CONCEPT OF A EUROPEAN SAVINGS ACCOUNT

### 2.1. OVERVIEW

In its Green Paper “Long term financing of the European economy” from March 2013 the European Commission states that the market for long-term financing has dried up since the financial crisis. The Commission assumes harm to the economy and growth perspectives of the European Union. Therefore, several measures are proposed to alleviate the problem. One of these measures is the introduction of a targeted European savings account.

This savings account should be offered to all households in the European Union in order to mobilize funds and promote saving. It should be targeted in the sense that the collected funds will be invested in predefined long-term investments. The EU counts as such long-term investments, which are in need of subsidized financing, long-term tangible and intangible assets, financing of small and medium sized enterprises (SMEs) and other investments, e.g., in infrastructure or education (COM (2013a), pp. 2 ff.).

The aim of this study is to give an economic assessment of the proposal of the European Commission to introduce a targeted European savings account. Since the design of such a measure is not definite yet, we have to relate our analysis to the French and Italian experience, which are both countries that currently offer comparable instruments to their citizens and are deemed to provide a role model for the new concept.

Such a measure would be a governmental intervention in the European credit and banking market. Given that we adhere to the principle of market economy, such an intervention requires a justification as it necessarily distorts the normal functioning of the markets. However, in some cases markets do not function well. If such a market failure persists, the state might intervene. The existence of such a market failure is only a necessary condition to justify state intervention. The intervention as such might be very costly and have its own negative effects on the efficiency of the markets. Thus, besides the market failure the state intends to mend through his intervention, we also have to take into account other distortions that might even lead to an even worse situation due the state's intervention. We have to prove that the benefits of the state intervention are higher than its costs.

The next two sections of the introductory chapter deal with the French and Italian experience and some practical conclusion we might draw from these mechanisms for the design of a targeted European saving account. Chapter 3

addresses the question whether we can identify a market failure on the European market for the financing of long-term investments that could be mended through the intended measure. In this course, the state, in our case the European Union, would step in as a financial intermediary. Therefore, chapter 4 gives an evaluation of the state in this special role. Chapter 5 deals with the potential effects of this form of state intervention, both positive and negative, on the capital market. Each of these chapters contains a short conclusion.

## 2.2. THE FRENCH AND ITALIAN ROLE MODELS FOR THE EUROPEAN PROPOSAL

In the Green Paper of the European Commission a savings account to attract funds for long-term investment is mentioned only briefly. Nevertheless, the French and Italian savings schemes are named as possible role models, though the question is raised how these models “would need adopting to be applicable at the EU level” (COM (2013a), p. 13). In both countries state-guaranteed saving products are offered to private households to attract their savings. State-owned banks use these funds to finance socially desirable investment. We will give an account of the current state of affairs as a framework for the discussion in what follows.

The targeted European savings account is one proposal from the Green Paper on Long-term Investment which forms part of the Europe 2020 ten-year growth strategy of the European Union. Beyond the immediate target of funding long-term investment, the savings account is also mentioned in connection to other purposes. These include the promotion of cross-border flows of savings and the harmonization of the European financial market (COM (2014a), p. 6 f.). The connection between these targets and the intended project is rather vague. Of course, if the European Union collects deposits in one member state and transfers the resulting funds to another, this leads to a cross-border flow of financial resources. But this does not mean that the depositors want to invest in these countries. The European Union can, within its financial means, direct financial resources across national borders without the introduction of the European savings account, and it already does in many different programs. Further, even if the European savings account were introduced in all national financial markets of the European Union, our discussion will show that the effect of this intervention in these markets can be rather different. As we can find no further comments to base our discussion on, our study will neither try to find out if the introduction of a European savings account is helpful in this context, nor whether these are goals worth pursuing. Thus, we rather focus on the potential of the European savings account to enhance long-term investment.

In France, the main savings product which channels funds into the governmental oversight is the “Livret A”. In a nutshell, Livret A is a current account offered to households with a guarantee on the deposits by the French state. It has a limit on the amount disposable, and a periodically adjusted fixed interest rate. Furthermore, interest earnings from the Livret A are not taxed, and no social charges have to be paid. The interest rate is fixed every three month by the government and should offer a premium over the market interest rates and even the inflation rate. The account comes with a cash card, but withdrawals are capped at 800 euro per week.

Apart from the Livret A, there are other so called “regulated” savings products: the Livret Bleu (same as Livret A but offered by Crédit Mutuel, a cooperative bank), Livret de Développement Durable (LDD), Livret d’Épargne Populaire (LEP, for residents with small taxable income) and Livret Jeune (for adolescents). Whereas only payments of the Livret A are guaranteed by the French state, all regulated saving accounts are exempt from taxes and social charges. Each person can own only one Livret A or Livret Bleu account for which the maximum deposit is 22,950 euro. Two residents of each household can also own a Livret de Développement Durable or Livret d’Épargne Populaire. If we add up all these advantages, i.e., preferential interest rate and tax exemption, they represent a subsidy of several hundred euros per citizen and year.

Historically only Banque postale (Postal Bank), Caisse d’épargne and Crédit mutuel (both cooperative banking groups) had the right to distribute Livret A and Livret Bleu respectively. Since 2009 and after a legal conflict with the European Commission, any bank has the right to distribute the Livret A on commission. The commissioning bank then has to transfer a maximum of 65% of the deposits to the Caisse des Dépôts et Consignations where the investments are managed. The bank must use 80% of the remainder to finance loans to small and medium sized businesses (SMEs) and 10% for private loans for energy saving housing renovation. The rest is used in other public projects, such as the renovation of hospitals.

From an economic perspective, the assignment of the deposits remaining with the commissioning bank to some merit purposes (SME lending, energy saving, etc.) looks a bit like a sham made for a better publicity of the concept. If the bank is already active in the respective fields, this assignment could attribute business activities to the existence of the Livret A deposit that would take place anyway. We would not expect banks to reshuffle their investment policy due to existence of Livret A deposits, as they do not influence the advantageousness of the investments. Real effects can only be expected in the case that a bank does not find a sufficient amount of lending activities attributable to the respective merit purposes and is willing to expand (or even start from the scratch) the respective

activities. Thus, the main effects from the perspective of the bank is that it can strengthen its client relationship by giving the clients access to a very substantial state subsidy, at the price of delivering 65% of the deposits to the Caisse des Dépôts.

The Caisse des Dépôts is owned by the French state but run as an independent development bank. However, its supervisory board consists of representatives of the state only, and it reports to the Parliament. The Caisse des Dépôts has to balance between two objectives. On the one hand it has to ensure the security and liquidity of the funds, and on the other hand the bank has to foster economic development. It is committed by law that about 25% of the deposits have to be invested directly on the financial market in liquid securities. Therefore, only nearly 75% of all Livret A, LDD and LEP funds can be used for targeted investments. The greater part of this is used to finance public investment projects, especially social housing.

In Italy, the government uses the branch network of the Italian Post, Poste Italiane, to distribute savings products. These range from current accounts, so called Libretti Postali, to postal savings bonds, Buoni Fruttiferi Postali. The state-owned development bank Cassa Depositi e Prestiti emits the accounts and bonds and manages the funds. The Libretti are available in different varieties, and the Italian state guarantees the payments on all of them. In contrast to the Livret A, there is no cap on the amounts disposable and the interest earnings are taxed if on average the holder deposited more than 5.000 euro over a year. There is no limit on the amount of withdrawals.

A major selling point of the Libretti is that the depositors do not have to pay fees for opening and closing the account and on transactions. Private banks in Italy normally charge relatively high fees on transactions compared to their European peers. The absence of these fees in the case of the state sponsored savings products can be understood as a monetary subsidy to the depositors. Accounts that were inactive for five years do not earn interest while on active accounts the interest rate can be contingent on the amount of deposits.

The savings bonds are emitted by the Cassa Depositi e Prestiti in different series with maturities between 18 month and up to 20 years. Interest usually rises over the maturity. Nominal values are normally at 150 euro or 250 euro per bond. Italians are entitled to subscribe as many bonds as they want, but the ownership of the bonds cannot be transcribed to other persons. After a certain minimum holding period, which differs according to the maturity, the bond can be reimbursed at nominal value plus accrued interest. The conditions of the bonds therefore set incentives for a long-term engagement. Earnings from the bonds are taxed, but they are also offered without commission fees. According to their features they should be classified as term deposits or certificate deposits.

Although the word “bond” is in constant use, one should note that there is no secondary market for these products.

The BancoPosta transfers the collected funds to the Cassa Depositi e Prestiti for a remuneration which is based on market deposit interest rates. The Cassa Depositi e Prestiti, like the French Caisse des Dépôts, is owned and controlled by the state, though some minority shareholders are banking foundations. The funds are invested in its division on public interest activity in long-term projects picked by the government, direct loans to local and regional authorities, infrastructure and loans to SMEs. Since a change in its legal structure in 2003 and its transformation into a stock company, the bank has also a commercial business division and is allowed to take direct equity stakes in companies and projects. According to Moody’s rating from February 2014, both new activities are seen as potential threats to the so far good asset quality of the bank (Moody’s (2014)).

## 2.3. LESSONS FOR THE DESIGN OF THE EUROPEAN SAVINGS ACCOUNT

The saving schemes in Italy and France both date back to the 19<sup>th</sup> century. Therefore, it is not possible to analyze the effects their initial introduction may have caused on the banking market. Nevertheless, some lessons can be inferred about a European version of a savings product. Thus, it is worthwhile to discuss the core elements of the concept and the potential adjustments.

### 2.3.1. Maturity

The intended European product can vary with respect to the time to maturity. Depending on how liquid the account is, it can satisfy different preferences of households. However, there is a trade-off between the attractiveness of the concept to depositors and the liquidity risk for the funds. The existing concepts differ with regard to the disposability of the invested money. The French and Italian current accounts (Livret A and Libretti postali) are redeemable at notice and therefore classified as sight deposits. Depositors make transactions and hold cash withdrawal cards. The postal saving bonds in Italy have minimum holding periods after which they are redeemable at notice.

The higher the disposability, the more attractive the product will be to households. Current accounts would attract all households, even those with very low income. Usually, the share of less liquid, higher yielding and riskier assets increases with income. On the other hand, the high disposability would result in a volatile flow of funds that poses a liquidity risk to the offering bank. Banks finance long-term assets in the form of loans with short-term deposits. Maturity

transformation is one of the main services that banks provide to the economy. But the maturity mismatch is also a risk. This is why the Caisse des Dépôts has to invest parts of its funds in liquid assets on financial markets.

The European Commission plans to use the funds mainly to finance long-term investments. Such a concept would require the management of the liquidity risk. One way would be to follow the French example and use part of the inflows to hedge liquidity needs. However, this amount of money cannot be invested in accordance with the original purpose. Another would be to offer less liquid instruments like the postal savings bonds. The incentives to hold these to maturity could be strengthened at the expense of the potential volume of collected funds. For example, there could be fines on the interest earned in case the bond is reimbursed before maturity, which would be in line with the Italian concept to promote a longer maturity of the deposits. However, the resulting prolonged average holding period might create an illusion of safety, as it does not prevent a run on the liquidity in case of a crisis. Thus, even with this property the respective institution would require a sufficient liquidity buffer.

### 2.3.2. Marketability and interest rate

The ability of such an instrument to attract a reasonable volume of funds depends on its marketability. It must have a unique selling point which differentiates it from rival, ordinary banking products. As the examples show, this could be the state guarantee, tax advantages, cost advantages or an above market yield. Regarding the first, it can be doubted whether a guarantee will suffice to attract customers. In accordance with the directive 1994/19/EC, every country in the European Union has a deposit-guarantee scheme for all deposits up to at least 100,000 euro, and large banks might also profit from their too-big-to-fail property. The new European mechanism for recovery and resolution of defaulting banks (Directive 2014/59/EU) is intended to cope with the distortions from too-big-to-fail. However, this has not been tested in a true case of emergency, and typical retail deposits are covered by the deposit insurance scheme anyway.

With regard to the second potential argument, the European Union cannot grant tax advantages, as every member state enjoys tax sovereignty. If member states dispense with tax revenues, it would augment the pressure on the problem of the inter-country allocation of funds. A compromise of all members on this topic seems very unlikely. The third possibility, to grant cost advantages, does not seem viable as well in most countries. As VAN DIJK and CEPS (2009) shows, fees on bank transactions in Italy are relatively high compared to other European countries, making a fee-free account less attractive in countries with lower average costs. Thus, the most straightforward and practical way to make the offer attractive is to follow the French model and pay a premium on the interest rate. It would



have the advantage that the costs, in form of interest payments, occur at the same institution which offers the product. Thus, a core element we expect for a targeted European savings account would be a subsidized, above market-interest rate.

### 2.3.3. Centralization rate and allocation of funds

Another question on the European level will be the allocation of funds between the member states. The answer depends on the organization of the distribution network. In Italy and France the funds are collected on a national level but partly targeted at struggling regions and municipalities. A similar redistribution of the means from the European savings account might also be in the interest of the European Union. According to the document accompanying the Green Paper (COM (2013b)), cross-border bank lending has significantly decreased since the outbreak of the financial crisis and borrowing costs have started to diverge across regions. This could be understood as a form of inefficiency due to the crisis that leads to a suboptimal capital allocation. However, it could also be true that the excessive cross-border lending before the crash had a destabilizing effect, and that the banks are just restoring sound practices through limiting the scope of their lending activities to their home turf (chapter 2 in IMF (2015b)).

Whichever of these two statements is true: the European Commission sees the financial Single Market at the edge of fragmentation and wishes to redistribute funds, in this case via a European savings account, to those countries and regions where long-term financing conditions have worsened most. This implies that some countries will be net beneficiaries and other countries' households will be net donors of funds. In our view, this poses a potential for political conflict as it could aggravate the ongoing debate about socializing state debt within the European boundaries. It might increase the general acceptability of such a trans-European flow of funds if the organization of the distribution network leaves room for regional participation. Supposedly, the European Investment Bank (EIB) will manage the funds centrally. In France, at least 35% of the collected funds remain with the operating bank. The percentage of collected funds which are transferred to the central management of the Caisse des Dépôts is called the centralization rate. On the European level, the centralization rate between regional banks and the EIB could be a measure to balance the political dispute about reallocation and the financing needs of weaker economic regions.

### 2.3.4. Distribution

In order to use singular banking groups in each country to distribute the product like in Italy, the EU Treaty and laws pose some preconditions. This shows in the infringement procedures the European Commission launched against France and

Italy. The historic distribution network in France was not able to keep its special rights based on the grounds that the tax advantage, offered only with the regulated savings accounts, impedes the freedom of establishment granted by Article 49 of the Treaty (European Commission IP/09/1482 08/10/2009). Consequently, France had to open its market for regulated savings to all banks and established a commission fee-based distribution. The BancoPosta also receives a fee for the collection of funds by the Libretti and Buoni Fruttiferi Postali. But BancoPosta offers other current accounts, the proceedings of which are deposited at the Italian Treasury. In exchange the Treasury paid an interest rate to the Postal Bank. The Commission decided that the earning from this interest rate constituted an unlawful state aid because it was above comparable market rates (decision C42/2006).

In consequence and regardless of which example is followed, the European Union has to pay market remuneration to the operating banking network. Furthermore, a public tender for procurement of the service has to be launched. Apart from the administrative costs and difficulties of such a tender, it could induce a bidding war under competing credit institutions which fear to lose their deposit base.

## 2.4. CONCLUSION: UNCERTAINTY ABOUT THE RIGHT MODEL

The study of the French and Italian scheme reveals a number of problems that must be solved when implementing such a system on the European level. One could argue that the European savings account should, e.g., rather have a longer maturity and restrictions on redemption and withdrawal to ease the maturity mismatch and set higher incentives for attracting additional savings instead of redirecting existing ones. However, this feature would greatly reduce the attractiveness of the concept in particular for low-income households, which will then not be able to profit from the ensuing subsidy. The distribution of the product should be open to all European banks on a commission basis to reduce the distortional effect on competition, while part of the funds could stay at the commissioning bank for mandatory uses.

Even if these problems were solved in a satisfactory way, the concept might still not generate a positive contribution to economic efficiency and to welfare. Such a statement must be based on the identification of a market failure and an evaluation of the intended measure to overcome this market failure and generate a superior situation. Therefore, we start with a closer inspection of the market for long-term investments in Europe.

### 3. THE EUROPEAN CREDIT MARKET FOR LONG-TERM FINANCING

#### 3.1. FINANCING GROWTH – A SHORT LOOK AT THE THEORY

The motivation for a potential state intervention through a European savings account is the low level of long-term investments and, as a consequence, insufficient economic growth in some European countries. Before entering into the discussion of potential negative externalities of such a measure, it is necessary to discuss the theoretical background and the validity of this argument. We have a closer look at this argument and the actual state of the market for long-term financing. The European Commission argues that the market for long-term investment fails to produce the level of output which is socially desirable (COM (2013b), p. 13). While it is hard to determine the exact level of socially desirable investment, two arguments from economic theory could support this statement.

Firstly, the market outcome is insufficient if apparently socially desirable projects cannot be financed. The supply of long-term financing would then be less than the demand of it. The Commission estimates that the impressive sum of 24 trillion euro is needed for long-term projects until 2020 (COM (2013b), p. 5). However, it makes no exact comment about which proportion of this amount can likely be financed without such an institutional change and which cannot. The past and current situation is not clear-cut either. Even the Commission itself acknowledges that, according to the Bank Lending Survey 2012 (ECB (2012)), the decline in private lending was not due to a lack of supply but to a diminishing demand. If this is true, the low level of private long-term investments is not related to a potential failure of the financial markets. Public long-term financing on the other hand remains restrained by the European debt crisis.

But the fact that a market is not in equilibrium is not sufficient in itself to be called a market failure. Temporary imbalances are natural during transition phases to new equilibria or within short- to medium-term lived economic cycles. The question, which is to be answered in the following sections, is whether structural or systematic deficiencies hinder the market to equilibrate supply and demand in the long-run. These structural reasons can be externalities, asymmetric information or concentrated market power of singular institutions.

Secondly, even if the market for long-term financing is technically functioning given the current economic and structural environment, it can still be beneficial for an economy to foster even more savings and long-term investment. Development economics derive theoretical growth models that explain how economies grow and what factors influence the growth rate. Independently of the sophisti-

cation of the models, investment plays the crucial role in inducing economic growth. According to SOLOW (1956), growth appears if the increase in capital stock through investment is higher than what is needed to account for population growth and depreciation of the existing stock. There are two ways to ensure this favorable situation: First, if the savings rate is raised, the amount of available investment increases. And second, if there is an innovation in technology, the existing capital can be employed more productively. Therefore, factors that influence the total factor productivity imply growth opportunities. One can count infrastructure and healthcare as such factors. They are preconditions in order to apply the classical production factors (capital and labor) in a productive way. With a stronger focus on labor as the production factor, MANKIW et al. (1992) point out that not capital itself but human capital is the relevant factor. Thereby, they stress the importance of investment in education for the development of an economy.

Endogenous growth theories, e.g., by ROMER (1986) and REBELO (1991), stress the fact that investment in education and R&D eventually leads to innovation, which has positive spillovers to the whole economy. They assume that knowledge diffuses across industries and finally national borders. Two strands of ideas emerged about how technology and growth are connected. The technology-gap hypotheses draws from the empirical finding that some countries enjoyed constant growth by catching-up through imitating the technologies invented in other countries that are on the “technological frontier”. The “national innovation systems” ideas on the other hand are concerned with how countries on this frontier can grow. They are based on the concept of Schumpeterian destructive innovation. Technological innovations in this sense make older technologies obsolete but have the potential to raise productivity. The most prominent example of the last decades is the development in information and communication technology.

In the following we will investigate the role of long-term investment as defined in the Green Paper of the Commission in stimulating growth. In this paper, the target is defined rather loosely as productive, long-term investment. These comprise tangible and intangible long lived assets with maturities over 5 years. Some examples are given, such as education, healthcare, infrastructure projects, energy-saving technology, industrial long-term investment and R&D. A good part of the target investments are provided by the government because they incorporate public good characteristics.

If a good is produced or an investment made by the government, it's financing sources and conditions differ markedly from that of a privately financed investment. Contrary to private entities, governments can enforce a boost of their revenues by raising new taxes. Further, the European states own development

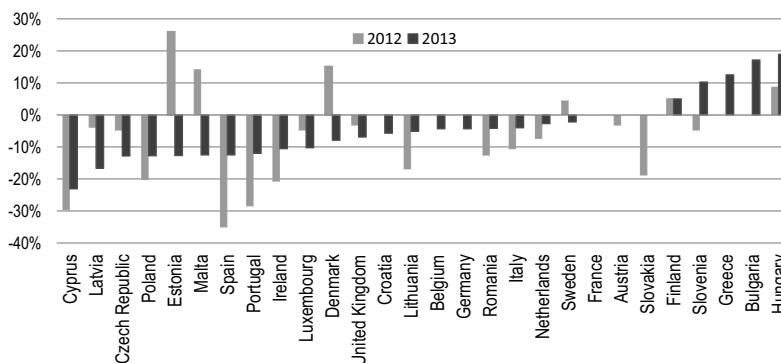
banks with means to provide finance upon request. Thus, an investment must not be profitable in the narrow sense that it generates a payoff that is able to cover the financing costs. In our analysis we therefore differentiate between public and private long-term investment.

### 3.2. LONG-TERM PUBLIC INVESTMENT

Long-term public investment comprises infrastructure, the classical example being roads and railroads, and equipment and machinery for state-owned institutions like hospitals, as well as non-infrastructure sectors, e.g., defense, culture, environment and social housing and community services (EIB (2013), p. 143). In a market economy, public investments should only be made when private investors fail to finance the socially desirable amount of the respective good. The typical market failure inducing public investment is the case of public goods. Education, healthcare and infrastructure, for example, are associated with positive externalities a private investor will not take into account when deciding to invest. Natural monopolies, e.g., telecoms, railroads or utilities, could also justify public investments.

Free markets do always fail to provide the socially desirable amount of public goods. The state has to step in. However, note that this does not imply that the state should raise the respective amounts of money through the type of state intervention discussed in this text. We do not observe a particular market failure with regard to the financing of public goods due to the financial crisis, but different levels of supply with public goods that depend on the ability and willingness of the political decision makers to provide the respective financial means. Modern states thereby have to tap the capital market.

Figure 1. Year-on-year change for 2012 and 2013 of gross fixed capital formation as percentage of GDP by the general government (in percentage), sorted by change in 2013.



Data: Eurostat.

The European savings account could be understood as means to bypass the limitations in the credit market for countries in the financial crisis. Thus, it would be used to substitute the normal credit instruments that are sometimes no longer available or very costly in the crisis. From a welfare perspective, this would not help to overcome any specific form of market failure in the procurement of public goods, but just make more funds available to the governments for whatever purpose. It is worth to have a closer look on the investment decision of the governments. Figure 1 shows the year-on-year change for 2012 and 2013 in fixed capital formation as percentage of GDP<sup>1</sup> for 28 member states. Overall, the picture is rather erratic. Some governmental expenditure plans induced positive changes in the respective countries. For example, Denmark increased its public investment by 15% in 2012 and Greece by 12.5% in 2013. In other years, there is a sharp drop.

Thus, the development depends on discrete political decisions and the political priorities, and even countries with high debt levels are able to boost their long term investments if they want to, probably by cutting other expenses.

The same erratic development can be observed over a longer period, as illustrated in Figure 2. It shows a cluster of all 28 countries sorted according to the changes in public investment for every year since 2008. After the onset of the financial crisis in 2009 shares of public investment of GDP were decreasing or constant in most countries. But countries that managed an increase in one period reduced their share of public investment in the next, and vice versa. Few countries had a constantly dropping share of long-term capital formation of GDP since 2010<sup>2</sup>, but none had constantly rising shares. The figures show that arbitrary sovereign spending plans dominate the decision on public investment.

Figure 3 shows that the aggregated gross capital formation of the governments of the EU-15 has dropped since 2009 in absolute terms as well (dark red line), while total government current expenditures have increased each year since 2008 despite all efforts to limit state expenditure. The trend in governments' collection of revenues, which are mostly taxes, shows a similar pattern as the change in GDP, since most taxes are levied on transactions or income.

The data supports the observation of Breunig and Busemeyer (2012) that governments are more likely to cut public investment and "soft social" spending in times of austerity than entitlement spending (current expenditures like wages and retirement costs). As the riots in Greece and other European countries

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<sup>1</sup> The data on gross fixed capital formation by the general government are compiled on a national accounts (ESA 2010) basis by Eurostat. TURRINI (2004) points out that this is the most commonly used statistic for public long-term investment. In order to make the data comparable between all European economies of different sizes, we use gross fixed capital formation as a percentage of national GDP.

<sup>2</sup> Spain, Italy, Ireland, Netherlands, UK, Romania, and Czech Republic.

Figure 2. Cluster of changes in gross capital formation as percentage of GDP by the public sector of EU-28 countries (in %), sorted by degree of change (from highest decrease to highest increase).

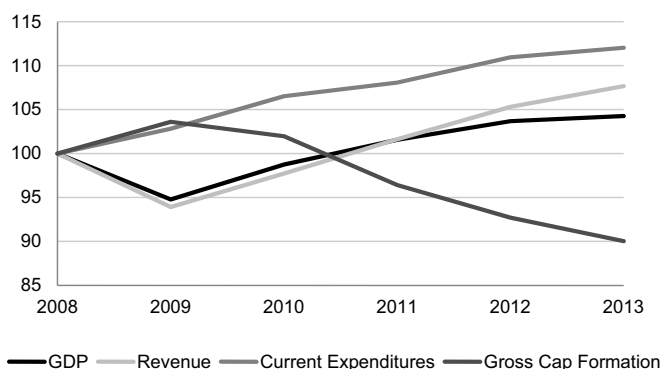
Public Sector					
2008	2009	2010	2011	2012	2013
Malta	Ireland	Croatia	Portugal	Spain	Cyprus
Hungary	Lithuania	Greece	Ireland	Cyprus	Latvia
Latvia	Romania	Italy	Bulgaria	Portugal	Czech Rep.
Croatia	Bulgaria	Czech Rep.	Greece	Ireland	Poland
Belgium	Greece	Malta	Spain	Poland	Estonia
Denmark	Latvia	Ireland	Slovenia	Slovakia	Malta
Spain	Croatia	Spain	Czech Rep.	Lithuania	Spain
France	Malta	Finland	Cyprus	Romania	Portugal
Lithuania	Denmark	Bulgaria	Luxembourg	Italy	Ireland
Luxembourg	Sweden	Austria	Hungary	Netherlands	Luxembourg
Netherlands	Hungary	UK	Austria	Czech Rep.	Denmark
Finland	Austria	Slovakia	UK	Luxembourg	UK
Italy	Slovenia	Romania	Lithuania	Slovenia	Croatia
Slovenia	Netherlands	France	Romania	Latvia	Lithuania
Sweden	Germany	Netherlands	Italy	Austria	Belgium
Germany	UK	Latvia	France	UK	Germany
Romania	Czech Rep.	Slovenia	Netherlands	Belgium	Romania
Slovakia	Belgium	Belgium	Sweden	Bulgaria	Italy
Cyprus	France	Germany	Denmark	Germany	Netherlands
Bulgaria	Portugal	Sweden	Germany	Greece	Sweden
Czech Rep.	Spain	Cyprus	Finland	France	France
Austria	Finland	Denmark	Estonia	Croatia	Austria
Ireland	Slovakia	Luxembourg	Belgium	Sweden	Slovakia
Greece	Italy	Hungary	Poland	Finland	Finland
Portugal	Luxembourg	Lithuania	Slovakia	Hungary	Slovenia
UK	Cyprus	Portugal	Croatia	Malta	Greece
Estonia	Estonia	Estonia	Latvia	Denmark	Bulgaria
Poland	Poland	Poland	Malta	Estonia	Hungary

decrease	almost no change	increase
no data		

Data: Eurostat.

Figure 3. Change in GDP, revenue, current expenditures, and gross fixed capital formation of general government of EU-15 (accumulated), change over time with 2008=100%, in percentage.



Data: Ameco.

showed, it is politically more costly to cut current expenditures, like people's income, than long-term investments whose benefits reveal not immediately. Public long-term investments appear to be a luxury in bad economic times. Nevertheless, the resulting underinvestment is not due to a market failure. The participants on the financial markets would certainly prefer to see more long-term public investment, and the markets would even reward a higher proportion of governmental spending for long-term public investments with lower refinancing rates for the total budget. In this case, underinvestment is the consequence of a failure in the political decision making process. However, one could argue in favor of the proposed European savings account that it might help to reduce the negative economic consequences of this type of state failure.

Yet, the project does not focus on the political decision making process, and therefore does not deal with the underlying problem. On the one hand, the new product as such is no argument to increase the already excessive debt of the respective countries. And on the other hand, it does not change the priorities of the politicians with regard to state expenditures. Thus, the governments could label inevitable long-term investments (or whatever else a creative mind could brand as long-term investment) as financed through the targeted European savings account. And they could substitute other debt titles through this new type of obligation. What we might gain is a new mean for the states to raise money, but not a reduction of the underinvestment. Thus, the new instrument is not related to a market failure that leads to underinvestment in long-term investments during a crisis.

Many countries had to implement severe austerity measures in the crisis. Seemingly, only if the economies start to recover, public investment could do so as well. The GDP growth rate of the EU-15 in 2013 was only 0.53% (0.69% for EU-28). The GDP growth rate per capita was a mere 0.28% for the EU-15 and 0.5% for the whole EU, while the US rate was 3.02%. This indicates that the recovery in Europe has not started yet. The Baltic, and some of the South-eastern and Eastern European economies had positive growth figures but the aggregate is held down by the troubled economies of Greece and Cyprus (-6.06% and -6.66% GDP growth). Spain, Italy and the United Kingdom were also in recession (data: Ameco).

In recession tax revenues also decrease, and governments have to rely on debt financing, be it through the capital markets, a targeted European savings account, or loans and guarantees from the ESM, or the indirect support from the ECB. However, the European debt crisis also made it more expensive for countries to borrow from the international capital market. In addition to current expenditures, long-term public investment has to compete with debt repayments over the available funds as well. BACCHIOCCHI et al. (2011) show that initially



highly indebted countries in the EU are more likely to cut public investment if the debt continues to increase, indicating that debt sustainability is an important factor for the budgeting of European governments. In this sense, an additional source for debt financing might even be counterproductive in the long run.

Thus, long-term investment becomes of secondary importance besides short-term pressing expenditures as it gets more expensive to finance the budgets because of slow economic growth and high refinancing costs. Governments tie long-term investment to spending packages which have to be passed through parliament during a legislative period. Therefore, their supply seems not to depend on market forces, although elevated refinancing costs might impair the chances for successfully passing all political hurdles. Hence, the causes that hinder the crisis-shocked countries from investing are driven by political decisions and can only be solved by such. Therefore, a shortage of public funds and an unwillingness to transfer the remaining financial resources into long-term investments cannot justify an intervention in private markets in order to finance public needs.

The importance of public investments for growth could still offer a rationale for boosting it by such an intervention. ROMERO-ÁVILA and STRAUCH (2008), for example, find that public investment in the EU-15 had a positive effect on growth, estimated over the period 1960 until 2001. The question is if those private funds collected through a European savings account and directed towards public investment could not be employed elsewhere at a more productive use.

According to the EIB's Investment Report (EIB (2013)) the share of public investment varies between 11% and 15% of total investment in the EU during the last 10 years, and it was mainly put to use in infrastructure. In 2012, about 50% of public investment was spent on infrastructure (EIB (2013)). MURA (2014) finds a positive effect of public investment in infrastructure, R&D, and education for six Eastern European countries during 1990-2013. But the growth experienced by the catch-up of Eastern Europe can hardly be transferred to the matured economies like France or Germany. FERNALD (1999) shows that public investment in infrastructure (especially roads) created an unrepeatable one-time productivity boost in the US in the 1950s and 1960s. Growth theory assumes rather plausible that there are diminishing returns to investments, like building new roads, airports, water systems, hospitals or school buildings. Once a sufficient infrastructure is established, the effect of additional airports or roads will be small or, with regard to maintenance costs, even negative. The last argument holds in particular for infrastructure that is not properly used because the economic activities in the respective region remain low due to other problem like, e.g., corruption and criminality. The European Union financed a great amount of infrastructure projects of the latter type. Thus, many other circumstances decide about the efficiency of state investment into public goods, and it

requires a lot of diligence and much more than the pure intention to channel money into certain regions with a low level of supply of public goods to successfully create a positive growth effect.

As TURRINI (2004) mentions, net government investment figures rely on estimates which are often not comprehensible. It is therefore common to use the gross figures, so that one cannot distinguish between new and replacement investments. The maintenance of a sophisticated infrastructure is costly, probably owing to the high share of infrastructure spending in gross capital formation. We conclude that public investment in infrastructure may still play an important role for new member states but that the old members mainly have to cope with the maintenance of their existing capital stock. Unfortunately, a further breakdown of the uses of public investment is not available.

Anyhow, we assume, as does the European Commission itself (COM (2014b)), that innovation will be essential in restoring competitiveness and spur future growth in Europe. FAGERBERG and VERSPAGEN (1996) show for geographical regions of six EU countries<sup>3</sup> that after 1990, when a process of convergence came to an end, R&D was the relevant factor that determined further growth differentials between the regions. States can foster innovation through long-term public investment by building schools, universities, and other public research facilities. But the relevant contributions for innovation and technological progress are not the investment themselves. The role of government in promoting growth in advanced economies has shifted towards providing stable institutions and a vigorous rule of law. These are the truly important factors for the realization of private ventures and economic growth in a Schumpeterian sense, and they require less money than an efficient and good government.

### 3.3. LONG-TERM PRIVATE INVESTMENT AND FINANCING OF SMES

Long-term private investments are made by firms in buildings and structures, machinery and equipment and other long-term assets, and by households for dwellings. Households' investments in their homes are, in a narrow sense, not productive, although they play a big role in the motivation of public subsidies especially in the Anglo-Saxon countries. Residential construction constitutes on average over the years 1995-2012 about 30% of total investment (data: Eurostat) and is included in the figures below on Gross Fixed Capital Formation by the private sector. In line with the arguing of the European Commission, we confine

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<sup>3</sup> Belgium, Germany, Netherlands, United Kingdom, France and Italy.

the discussion of the figures in this study at implications for firms' investment which is assumed to be productive.

Figure 4. Cluster of changes in gross capital formation as percentage of GDP by the private sector of EU-28 countries (in %), sorted by degree of change (from highest decrease to highest increase).

Private Sector					
2008	2009	2010	2011	2012	2013
Ireland	Latvia	Ireland	Malta	Greece	Cyprus
Estonia	Lithuania	Bulgaria	Greece	Cyprus	Greece
Greece	Estonia	Latvia	Cyprus	Portugal	Spain
Latvia	Romania	Greece	Croatia	Slovakia	Finland
Spain	Slovenia	Slovenia	Portugal	Slovenia	Portugal
UK	Ireland	Hungary	Spain	Netherlands	Romania
Malta	Spain	Croatia	Slovenia	Italy	Bulgaria
Italy	Slovakia	Portugal	Italy	Croatia	Italy
Denmark	Cyprus	Lithuania	Ireland	Hungary	Netherlands
Lithuania	Denmark	Cyprus	Hungary	Spain	Luxembourg
Czech Rep.	UK	Poland	Denmark	Denmark	Slovakia
Portugal	Bulgaria	Denmark	Czech Rep.	Czech Rep.	Czech Rep.
Slovakia	Croatia	Netherlands	Bulgaria	Malta	France
Germany	Luxembourg	Spain	France	Sweden	Belgium
Austria	Finland	Luxembourg	Netherlands	Finland	Ireland
Sweden	Greece	Austria	Finland	Germany	Croatia
Finland	Sweden	Finland	UK	France	Austria
France	Italy	Belgium	Sweden	Belgium	Latvia
Belgium	Portugal	Estonia	Belgium	Austria	Sweden
Netherlands	Czech Rep.	France	Poland	Lithuania	Germany
Hungary	France	Czech Rep.	Germany	UK	Slovenia
Poland	Germany	Italy	Austria	Poland	Denmark
Slovenia	Netherlands	UK	Romania	Bulgaria	Poland
Luxembourg	Belgium	Romania	Slovakia	Estonia	Hungary
Cyprus	Malta	Germany	Luxembourg	Luxembourg	UK
Croatia	Austria	Sweden	Lithuania	Romania	Malta
Romania	Hungary	Slovakia	Latvia	Ireland	Estonia
Bulgaria	Poland	Malta	Estonia	Latvia	Lithuania

decrease	almost no change	increase
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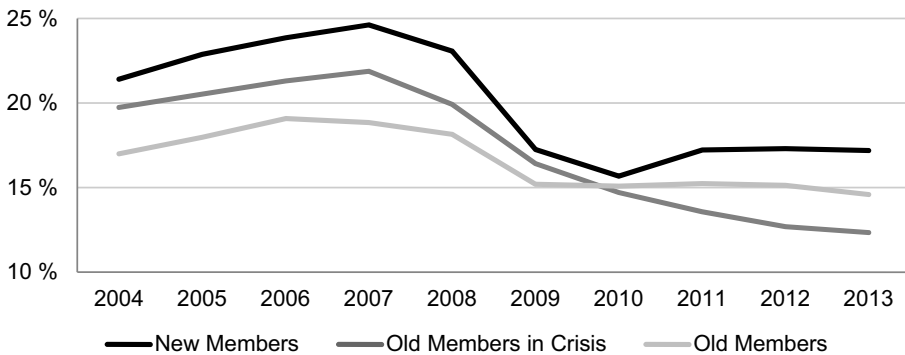
Data: Eurostat.

Overall, the development of Gross Fixed Capital Formation by the whole private sector shows a less erratic pattern than the development in the public sector. As Figure 4 shows, from 2008 to 2009 investments by the private sector decreased in all European countries and hit record lows. Since then, the trends differ between country groups. Most European countries experienced a mild recovery from the slump in 2009. Of these, in 2013 only five countries exceeded their pre-crisis investment levels of 2008. These are Germany, Austria, Belgium, Luxembourg and Sweden. The countries which were at the depth of the sovereign debt crisis,<sup>4</sup> on the other hand, were the only countries with constantly falling investments, and they report investment levels in 2013 below the 2009 level. Ireland's

<sup>4</sup> Greece, Spain, Portugal, and Cyprus, but in this case also Croatia.

and Italy's recovery was worse than the average, as well as Britain's, Denmark's and that of the Netherlands (data: Eurostat), although the economies of the latter countries are generally believed to be healthier<sup>5</sup>. Figure 5 illustrates the development of gross fixed capital formation by the private sector between 2004 and 2013 divided into different country groups. It shows that the relative share of private investment is decreasing in old member states as well as in the countries in crisis since 2007. On average, only the new member states experienced a significant recovery in 2011.

**Figure 5. Gross fixed capital formation by the private sector as share of GDP, from 2004-2013. New Members: Eastern Europe and Baltic states. Old Members in Crisis: Greece, Spain, Portugal, Ireland, Cyprus. Old Members: Rest.**



Data: Eurostat.

In order to detect a possible market failure, we have to investigate the reasons why the investment of the private sector is so weak since the financial crisis. The numbers show diverging trends for the countries in sovereign debt crisis on the one hand and the rest of Europe on the other hand. The first question is therefore, why the crisis states cannot participate in the recovery. The second question is what factors influence the dynamics of the recovery process and whether structural factors exist that are permanently hindering an upswing.

In a normal investment cycle, once investments tumbled and expectations about future profits have worsened, the central bank can adjust the leading interest rates downwards, as did the European Central Bank. This should ease the refinancing difficulties of the banks and is intended to reverse the negative supply trend. Ideally the downgrade of the central rates should therefore lead to decreasing retail rates and more private investment. However, the actual crisis does not follow this simple logic. Although the ECB has lowered its target rates close to zero, investment in

<sup>5</sup> Denmark and the Netherlands have both a highly indebted private sector and had to cope with the burst of a substantial property price bubble leading to a more intense need for deleveraging.

Europe is still restraint. According to the Financial Stability Review of the ECB in December 2014 (ECB (2014a)), external funding costs for long-term financing for Non-Financial Corporations (NFCs) have returned to their pre-crisis levels. Banks' lending rates continue to decline for all maturities, but NFCs hoard liquidity in cash positions (ECB (2014a), p. 17 ff.) indicating that firms withhold credit demand. From the questionnaire executed by the Task Force under the guidance of the EIB and the research of the ECB we extract two main causes for the reluctance in investment which can be considered structural inefficiencies.<sup>6</sup> One is the macroeconomic uncertainty and high risk aversion of investors which dampens the demand for long-term loans. The other is the claim that banking intermediation is distorted by fragmentation and regulation, dampening the supply.

Firstly, uncertainty remains high, thereby discouraging firms from investments despite the ameliorating financing conditions. Seemingly, the ECB can temporarily calm the financial market, but cannot overcome the distrust of the decision makers in the companies' management. The ECB mentions in its Monthly Bulletin in October 2013 that indicators for uncertainty which peaked during 2008 and 2009 and during 2011 have on average receded since 2012 (ECB (2013a), p. 47f.). These are technical indicators like implied volatilities of the financial markets. Indicators about the perceived uncertainty of agents that are constructed from surveys and questionnaires show the same pattern, though on a still elevated level compared to the pre-crisis time. Expectations seem to be bettering alongside with the slow economic recovery. Europe, it appears, is in a vicious circle where the one entails the other and reverse. This is a gloomy outlook for countries which are still in or close to recession. However, this problem is not related to any failures in the financial market, as these companies that are afraid of too much uncertainty do not even enter the market for the financing of long-term investment.

This argument does not exclude the possibility that investments are also restricted on the supply side. In the context of the crisis, the intermediation process could be harmed in a way that firms that do want to invest cannot obtain funds from banks. This problem should have particularly severe consequences in continental Europe, as companies in these countries rely to a larger degree on bank financing than, e.g., companies in the US.

There are some hints in the data that this is the case. In order to cope with losses and augmented regulatory standards in particular with regard to the capital requirements, banks have to deleverage. As a consequence, the financial sector

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<sup>6</sup> See ECB (2014a), EIB (2013). The Task Force of EIB, European Commission and member state councils document in their Report (COM et al. (2014)) to the European Commission that countries replied in a questionnaire the following reasons: macroeconomic uncertainty, financing conditions, SMEs access to finance, capital regulation and frictions, project related difficulties (size, administration, regulatory hurdles).

cut lending to non-financial firms at the height of the crisis in 2009/10. Since 2011 loans to NFCs are declining on average, although short-term loans recently started a slow positive trend (ECB (2014b), p.24). Notably, in some countries, like Germany, lending to NFCs has increased, although the overall trend still looks dim. Nevertheless, it is not straightforward that the decline in bank lending caused the drop in companies' investments. The EIB Investment Report (EIB (2013), p.190), fails to establish a direct correlation between deleveraging and investment on the aggregate level. However, it shows that firms with better access to market-financing (e.g., listed or rated firms) and those which are less dependent on bank-financing (higher internal reserves) have reduced their investment less than other companies (EIB (2013), p.192f.).

Large firms have better access to financing including bank loans. The latest Bank Lending Survey (ECB (2014c)) shows that banks eased their financing conditions for large firms, but only in the recuperating European economies. It emphasizes the difficult situation of SMEs which naturally depend more on bank-financing. Their conditions are not alleviating. According to the SAFE survey, SMEs in all Euro-area countries still experience an external financing gap. With the exception of Greece, the financing gap is getting smaller, because the pace in which the access to bank loans is deteriorating is slowing down (ECB (2014d)). But still the availability of loans, trade credit and bank overdrafts are deteriorating. The survey also shows that the conditions vary across countries, which is interpreted as a proof that the market is fragmented.

If bank lending in one country is not functioning properly, the integrated European market should allow competing banks from other countries to step in. Conversely, the crisis led to a strong reduction of cross-border lending. A report of the IMF states that cross-border loans of Euro-area banks to the private sector have decreased by 40% in the time from 2008 to 2012 (IMF (2013), p.17f.). This development could cause inefficiencies if funds do no longer flow to their most productive use. Companies with productive investment ideas in countries torn by the crisis might not get financing while companies in "good" countries would get a loan for a less productive investment. (COM (2013b), p. 17). But it is hard to disentangle such a home bias effect due to fragmentation from a due discount for a pronounced negative economic outlook in the respective country, or for corruption and bureaucratic inefficiency that threaten any business endeavor. Not surprisingly, the EIB (2013) report states that the foreign activity of a bank is significantly negatively correlated to the sovereign risk of the host country. It indicates a strong nexus between sovereign risk and bank balance sheets which led to a downward spiral during the debt crisis in some countries. Thus, the "fragmentation" of the loan market might as well mirror the diverging economic and social conditions of the different countries and not a market failure on the financing side.

Returning to the question why some countries cannot participate in the recovery, the EIB report shows that the crisis states' initial position differed to that of the new member states and that of the old member states who were not in crisis. Unlike the other old members, who are net lenders, the crisis countries and the new member states were net borrowers of funds. They depended more on external financing, which dried up after the emergence of the European sovereign debt crisis. While the positive flows to new member states were restored in 2010, flows to the crisis states did not (EIB (2013), p.119). Therefore an important source of financing for investment disappeared. A possible explanation is that the inflows to the crisis countries were motivated by portfolio reasons and were not direct investments (EIB (2013), p. 124) which were the main reason for inflows to the new member states. Direct investments are investments in equity and considered to be productive, while portfolio investments in the crisis countries were investment in debt associated with consumption purposes and real estate. Again, maybe the excessive inflow of capital before the crisis itself was a market failure provoked by the implicit guarantees of the European Union and the ECB, whereas the ensuing outflow just represents the bursting of a bubble and the return to an investment level that properly represents the quality of the economic policy and institutions of the respective countries.

Apparently, the structural differences that led some European states into an unsustainable path were laid out before the crisis. Expectations about future opportunities and stability are more important for long-term than short-term investment. Hence a creditable plan for market-oriented reforms and growth in the economies that are still in crisis has to be found on a political level in order to restore incentives for both, entrepreneurs and investors or banks, to invest. As long as this is not the case, the outflow of investment capital is the natural reaction of a functioning market and not a signal for a market failure. In this context, a concept to reverse this trend through the introduction of a targeted European savings account would work against market forces.

While banking regulation intends to stabilize banking markets, it has several negative side effects. The first is the already mentioned process of deleveraging through a reduction of the banks' risky assets. However, this does not necessarily lead to a reduction of loans to finance long term private investments. Banks have a wide choice in which asset category they would like to disinvest, and it is easier to dispose of securities than of loans. On the other hand, the existing rules provide privileges for tradable securities and in particular for state debt with regard to both liquidity and solvency requirements. In this way, the regulation creates incentives for banks to disinvest in the corporate loan area instead in capital markets titles. Furthermore, banking regulation has a strong fixed-costs effect. As a consequence, it is easier for large banks to cope with the burgeoning

regulatory costs than for small banks. If small banks merge or vanish, this could also have negative consequences for SME financing.

One effect of the increased regulatory pressure on banking is the shifting of financial activities into unregulated capital markets. With the introduction of a targeted European savings account the European Union would follow a similar path. As excessive regulation threatens the functionality of financial intermediation through banks, the European legislators simply bypasses the regulated market through the construction of an alternative intermediation system. As will be shown in the following chapters, this intervention comes at a high price. And it is not easy to justify as it is the same European legislator who could adjust banking regulation in a way that would at least reduce its adverse effects.

### 3.4. CONCLUSION: NO EVIDENT MARKET FAILURE

Both public and private long-term investments were greatly reduced in the course of the financial crisis, and both remain rather weak in particular in countries that did not recover. However, it is not easy to link this observation to a market failure that could be mended through, e.g., the introduction of a targeted European savings account or even through the creation of a capital markets union. The level of public long-term investments is mainly determined by political decisions, and the introduction of the new concept would not change the priorities of the political decision makers. True, the concept might be used as a subterfuge to further expand state debt, and some economists might expect a positive economic effect of such an increase in state spending. However, such an expansion can be implemented without the introduction of a European savings account.

The lower level of private long-term investments is, in the first line, driven by the negative economic outlook in the respective countries that makes it not attractive to invest for both companies and the banks that are asked to finance the investments. In these countries where long-term lending has not yet recovered, divergent causes can be determined. On the one hand bank lending is still restrained, presumably in some cases because banks are still deleveraging in order to cope with stricter regulation. On the other hand, companies hoard cash reserves and are uncertain about the future economic performance so that they restrict their demand for long-term loans voluntarily, while the offered bank rates for these loans have returned to pre-crisis levels. Nevertheless, the IMF reckons in its *World Economic Outlook 2015* that the weak economic environment is the only cause that can be clearly identified (IMF (2015a) p. 121 f.). Again, such insight should also have an impact on what to expect from the projected European capital markets union and on the adequate design of the steps towards this goal.



## 4. THE INTERMEDIATION APPROACH AND STATE INTERVENTION

### 4.1. MARKET FAILURE VERSUS STATE FAILURE

The case for a targeted European savings account is based on the assumption that the markets for long-term bank-financing do not perform their task. In the preceding section we showed that this argument is rather weak, at best. However, even if the argument is accepted, substituting a defunct market solution by the state might not necessary lead to a better situation. Banks do deliver much more than capital. They act as financial intermediaries, and this function contains several special dimensions. Thereby, financial intermediaries make the transfer of capital feasible and generate value. Furthermore, banks are not the only potential financing source. Financial markets, venture capitalists or private equity funds do also perform some of the economic functions of a financial intermediary.

Thus, if the state wants to supplant banks in the financing of companies or states to overcome a potential market failure, its representatives should be able to prove that the respective state intervention can better overcome the obstacles creating this market failure than any other alternative financing source. This does not refer to the availability of capital. As the state can always draw on taxpayers' money when providing guarantees, its ability to make funds available, either directly or through granting a guarantee to the investors, is trivial. This holds at least as long as the state itself is not threatened by bankruptcy, in which case the implementation of European savings account with a state guarantee would not be feasible anyway. The sticking point is if this new form of financing companies or public projects is feasible in the sense that, in supplanting the banks, the state is able to perform the special functions of a financial intermediary as well, or, for some unknown reason, might not need these special functions to make an efficient investment. Otherwise, state guarantees on a targeted European savings account might lead to a temporary surge of private investments in the short run, but at the price of heavy burdens for the taxpayer when the financiers draw on the guarantees, and a general misallocation of capital.

Thus, in following we have closer look at banks as financial intermediaries and at the question if the state, in this case the European Union, can supplant them in this function without a severe loss of efficiency. The dimensions of the activities of financial intermediaries are summarized under three different rubrics covered in the following three sections: Banks act as delegated monitors, liquidity pools and delegated contractors.

## 4.2. BANKS AS DELEGATED MONITORS

The core technology of banks is that they monitor the credit worthiness of their debtors (DIAMOND (1984)). Credit worthiness concerns both the ability of the debtor to pay his debt, and his willingness to do so. Today, the first component of credit worthiness is mainly analyzed through a quantitative examination of the clients' data. In some fields of the credit business, e.g., consumer loans, many banks limit their monitoring activity to this aspect. However, with greater size and higher complexity of the financed project this is not sufficient. This holds for corporate loans in particular. The assessment of the companies' credit worthiness requires a good understanding of the respective business model, an evaluation of the quality of the company's management, and insight into the decision structures and the motivation of the decision makers. On the banks' side, it takes time and resources to develop the respective competence.

Even banks do not always perform this monitoring function in an efficient way. As the recent financial crisis showed, loan monitoring also relies on the right incentive structure. In the forefront of the financial crisis, banks were able to sell the risk of their loans to the capital markets through the use of credit derivatives and ABS structures, and this at rates that were based on the erroneous believe of the market participants that the sale would not change the average quality of the credit portfolios. Consequently, the originating banks did not care for the quality of the loans they granted, with disastrous consequences for credit quality and the financial institutions that bought the credit risk. The event does not only disclose potential weaknesses of banking, which some might take as an argument to transfer the banking functions to a different type of institution. It also demonstrates how costly wrong incentives in the process of the granting of loans can become, which is a severe warning when discussing alternative solutions.

Given this experience, it is strongly desirable that the decision to grant a loan takes places in an unbiased way. This can be guaranteed through full liability, or at least a sufficient retention of the credit risk as prescribed by the European Union for CLOs from 2014 onwards (Regulation (EU) No 575/2013). The decision should not be influenced by personal or political considerations. In a competitive environment, a bank that does not perform its monitoring task in an efficient way will tend to make a loss from its credit business. Therefore, banks should apply an optimal monitoring technology. In practice, few banks fulfill this criterion. Sometimes portfolio considerations distort their decision, and a large set of regulatory rules intended to implement best practice might also lead to an inefficient behavior in some cases (e.g., BROWN et al. (2013)). Nonetheless, deviations from this benchmark case come with certain costs, and banks as profit-maximizing institutions that, at least in principle, can go bankrupt will try hard avoiding these costs.

If the state performed the banks' task as monitor of credit engagements, we would expect still stronger distortions in the monitoring incentives. In the past, at least some state development banks had been overcautious. However, through the intended measure, the EU wants to increase long-term investments. Thus, if the project shall be successful in this respect, the EU credit officers must be predisposed to grant a loan, and the more so if they are acting in European countries where the reduction in long-term investment has been particularly strong. These are exactly the markets in which the credit worthiness of both companies and states might be particularly doubtful. In a process of an inbuilt adverse selection, most of the money could end up exactly where it should never have been invested, if the investors expect a sufficient repayment rate to cover the financing cost.

Obviously, the EU will define rules for the decision to grant a loan that should prevent such a misallocation. Even so, the experience with political motivated granting of loans is rather negative, with largest visibility going to the failure of the US-American state-sponsored finance companies Fannie Mae and Freddie Mac, who were definitely not overcautious. In these cases, not only state influence but also competitive pressure induced the institutions to take ever higher risk to keep their position in the market, which again motivated the banks to further increase the riskiness of their credit portfolios. Thus, besides political interference, it might also be the self-interest of the instated bureaucracy in combination with an explicit or, as in the case of Fannie Mae and Freddie Mac, implicit state guarantee that will distort the decision to grant a loan. Certainly, it is not possible to compare the historical cases with the performance of a hypothetical institution that is not designed in detail already. But the parallels are evident, and taxpayers should be prepared to cover larger losses due to distorted monitoring incentives.

### 4.3. BANKS AS LIQUIDITY POOLS

Banks provide the economy with both long-term financial resources and short-term liquidity. Thereby, they pool the liquidity demands of both depositors and debtors. As these demands are stochastic and not perfectly correlated, banks are able to provide this service with a minimum liquidity buffer (KASHYAP et al. (2002)). The inter-bank market for liquidity allows a further reduction of the liquidity buffer the individual bank has to keep. A functioning banking system therefore allows for a maximum of long-term investments while guaranteeing the liquidity of the financial system and of all solvent economic agents. As liquidity is costly, the banks' function as liquidity pool is a great contribution to economic efficiency.

In the books of a bank, this function is mirrored in the often high degree of term transformation banks' provide. Regulators dislike this, as it leads to the grave inherent risk of banking: No bank can survive a run on its liquidity. Thus, even for very healthy banks a run becomes a self-fulfilling prophecy. And a run on an individual bank can easily spread to other banks, as the depositors of these banks can withdraw their deposits at almost no costs if they have any suspicion that their bank has similar problems (DIAMOND and DYBVIK (1983), KRÜMMEL (1983), DEVANOW and WELCH (1996)). This general bank run is the cataclysm of modern capitalism, as it destroys both the credit system and the payment system and thereby can induce great harm to the economy.

If the European savings account is designed as a current account or makes the invested money available at short notice, the state would substitute banks in their function as liquidity provider in this respect. It would also take the corresponding liquidity risk, and would have to take the respective precautions. In line with this reasoning, the French Caisse des Dépôts et Consignations has to provide a rather large liquidity buffer. Politicians might be tempted to neglect this prerequisite for the new European institution to be able to dispose over a greater amount of investment capital. This can be done in a straightforward way through a reduced percentage for the liquidity buffer, or indirectly through the definition of liquid assets. In particular the acceptance of state bonds of low quality as liquidity reserve would look like a perfect alignment of interests, as it would allow to show attractive liquidity ratios and to invest more into one of the proclaimed target areas at the same time. In reality, such a proceeding would be a detriment against systemic stability.

From today's perspective, we cannot determine how liquidity risk might be treated in the context of a targeted European savings account. However, it is worth noting that this risk does not vanish through its transfer on the European Union, and that we can identify strong incentives for the policy makers to neglect it. In case of an emergency, they could even rely on an implicit guarantee of the European Central Bank. The ECB, as lender of last resort for the banks, might feel an even stronger obligation to provide liquidity to such a European investment vehicle. With this costless insurance in mind, a costly management of liquidity risk seems obsolete. From a more general perspective, such a design would add to the many abuses of the privilege on money creation of the ECB in the context of the European debt crisis. If the ECB refrained from such an obligation in a crisis situation, e.g., because it identified not only a liquidity crisis but also low asset quality, the tax payer would also have covered the costs of illiquidity.

The reference to the central bank as lender of last resort raises the interesting question if the liquidity risk of financial markets should not generally be managed

by the state. Payment services can be understood as a natural monopoly, as the stability of the banking system contains elements of a public good. This characteristic motivates today's banking regulation, whereas a radical consequence would be to nationalize all the banks. In fact, during the financial crisis from 2007 onwards this has happened to a number of large banks. The proposal in the Green Paper does not embrace such a rift with market economy, but only wants to substitute the banks to some degree through state-guaranteed funds, whereas the rest of the banking business remains untouched.

This partial ousting of the banks in a central field of their activity might generate an undesired feedback. How good can banks perform their task as liquidity pool if a certain proportion of this pool is transferred to the European savings account? If both the conventional banking account and the European savings account serve as a sight deposit, we could expect depositors to split their liquidity on both. In case of liquidity needs, they would draw first on the conventional banking account (HAKENES and SCHLIEPHAKE (2014)) instead of the European savings account with its higher interest rate and explicit state guarantee. The liquidity demands banks face would become more volatile therefore, requiring a larger liquidity buffer on the banks' side. Thus, banking would become less efficient and more expensive. In the worst case, the well-meant measure could also increase the systemic risk of the banking system and thereby endanger the stability of the economy. We will inspect this argument closer in section 5.5.

#### 4.4. BANKS AS DELEGATED CONTRACTORS

In particular in the corporate loan business banks and their clients often entertain a long and intensive relationship. As a consequence, bank loans to corporates are often relationship based. Thus, the contract contains both explicit and implicit components. The implicit components refer to how to conduct in situations in which the written contract does not specify what to do, or if the respective behavior cannot be enforced. Thus, the contract has to be renegotiated. In this sense, the original contract was incomplete. Contractual incompleteness generally refers to dimensions of a contractual relationship that are not contractible. In a loan relationship this could refer to the provision of timely and unbiased information, transparency with regard to intentions, or, on the bank's side, long-term reliability and constructive behavior in case of a crisis of the company (with regard to Germany, ELSAS (2005)). Supposedly the most relevant renegotiation occurs if the debtor cannot fulfill his obligation and is threatened by bankruptcy. In this situation it makes a big difference if the bank feels no special obligation towards its client and is just trying to maximize its proceeds, or if it is willing to risk a solution that might payoff only in the far future.

The resulting type of relationship can be described as a reputational contract. Both parties and the other market participants are aware of which behavior is in accordance with this unwritten agreement. If anyone deviates, he loses his reputation and is no longer acceptable as a partner in this kind of relationship. A possible short-term advantage stands against the damage from losing the reputation and future business. The penalty is particularly severe if other market participants also hear about the loss of reputation and stigmatize the offender accordingly. The ability to enter into such reputational contracts is valuable, as it immensely widens the spectrum of co-ordination that is possible between the contracting parties (SHARPE (1990)).

A reputational equilibrium requires decision makers on both sides to implement a behavior that is in line with the implicit agreement on what to do in this situation. Thus, it requires discretion. This discretion is in conflict with any state bureaucracy, as a bureaucracy draws its relative efficiency from the adherence to explicit rules that are derived from the legal framework. Therefore the state is not a good partner for this type of renegotiation. Furthermore, the state should take a position of neutrality toward the economic agents, as it is a guarantor for fair competition. Thus, the state cannot enter into a special relationship. In this sense, state agencies should not act like a bank. But if they do not act like banks in their credit relationships, these relationships will have a lower value than the ones true banks are able to develop.

The relative importance of relationship banking differs greatly in Europe, depending on the types of banking institutions and the structure of the banking market, and also depending on the respective cultural tradition that also influence the character of financing relationships. Germany, for example, understands its “Hausbank”-system as a great deliverance in crisis times, as it allows the bank and its client to solve problems at an early stage and with a binding commitment on both sides. LEHMANN and NEUBERGER (2001) show that partaking in a “Hausbank”-relationship increases credit availability for SMEs. Other countries follow mainly the Anglo-Saxon model of arms-length banking, which implies on the banks’ side short-term profit maximization and less support in a company’s crisis.

Furthermore, especially for SME bank lending the organizational structure and size of banks play an important role. SME-debtors of small banks will usually renegotiate with members of the highest level of the banks’ hierarchy, which might also command the greatest leeway to create a solution that sometimes only pays off in the very long run. In large banks, the ability to renegotiate depends on the degree of decentralization and autarky of decision making on the respective level of the bank’s hierarchy. With regard to monitoring SMEs, BERGER and UDELL (2002) argue that the availability of loans to SMEs is best if banks are

structured as small, closely-held organizations with few managerial layers. However, in a later paper they modify this statement through the observation that large, centralized banks might use other monitoring technologies apart from relationship lending to successfully lend to SMEs (BERGER and UDELL (2005)). However, such lending technologies are mainly based on “hard”, quantitative data. We assume that these technologies could also be applied by a state agency without great loss of efficiency, whereas both the generation of soft information from relationship lending and their application in debt renegotiation is not easily imitable.

Thus, in European countries following the transaction style of SME-lending the difference might not be so big. In other countries the financing of long-term, corporate investments from the funds of the targeted European savings account could either crowd out a more efficient type of contract or lack marketability, depending on how highly subsidized the resulting loans are. If the subsidy is high enough to oust relationship banking, the resulting new financing relationships with a state agency nonetheless tend to be less efficient than the old ones which contained many valuable implicit components.

Finally, it should be noted that long-term reputational contracts are fragile in the sense that they rely on a stable environment. If both parties are not sure if the game will continue, the loss of reputation for this game loses its value and is no longer an obstacle against breaching the implicit contract. If, as will be discussed more thoroughly in section 5.5, the introduction of a European savings account reduces the stability of the banking system, it also endangers the stability of long-term financing relationships. In the worst case, this could trigger a vicious circle, as the destruction of reputational contracts destroys value on both the clients and the banks’ side. The latter further endangers the stability of the bank and thereby might trigger the destruction of other reputational contracts that looked very stable before the vicious circle took off. And again, the relevance of this effect depends on the structure of the banking systems and the relative importance of relationship banking in the different European countries.

#### 4.5. CONCLUSION: THE STATE IS NOT A CAPABLE BANK

The state can play a large and beneficial role in banking. It provides the special regulatory framework to ensure the stability of the banking system. State banks can channel subsidies to the right point in the economy, like, e.g., in support of young and risky companies (BAUER and BURGHOF (2007)). And finally even banks owned by public constituencies can contribute to the efficiency of a financial system if they are protected from political interference and gain sufficient independence to act in accordance with economic criteria. However, in

the case of the targeted European savings account such a protection is not intended. The European Union would step in to explicitly fulfill a political objective. And it not only provides a subsidy, but would supplant conventional banking activities. Therefore, the tax payers' guarantee for the resulting state bank can become very costly, as it cannot perform the function of a financial intermediary as efficiently as ordinary banks.

In chapter 3 we argued that there is only weak evidence for a market failure that could be mended through the introduction of a targeted European savings account. Politicians might nonetheless want to give it a try. The current chapter argues that even the direct costs of this trial, i.e., what the taxpayer has to pay for an inefficient institution with a state guarantee, can be prohibitively high.



## 5. THE TARGETED EU SAVINGS ACCOUNT AND THE FINANCIAL AND BANKING MARKETS

### 5.1. MARKETABILITY AND POTENTIAL VOLUME

The purpose of the targeted savings account is to collect funds from private households in order to redirect them into long-term investment. Thus, a first criterion for the success of the intended measure is that it promises to collect a relevant volume of deposits. It is worth noting that this criterion is not sufficient. On the contrary, it is ambivalent, depending of the overall assessment of the concept. If the result of this assessment is negative, the ability to attract a high volume of money would increase the expected damage from a faulty political intervention into the markets.

With regard to volumes, we must distinguish the topic of the amount attracted through a targeted European savings account from the question if the product creates incentives for additional savings. Households use their disposable income for consumption and save the remainder. In line with growth theory, we assume consumption is of minor importance for growth, even though the public debate does sometimes stress the dampening effect of low demand for consumer goods. However, innovation and technological advances are the main drivers of growth in developed countries like most member states of the European Union. Consequently, if the European savings account sets incentives to save more, this could be a benefit.

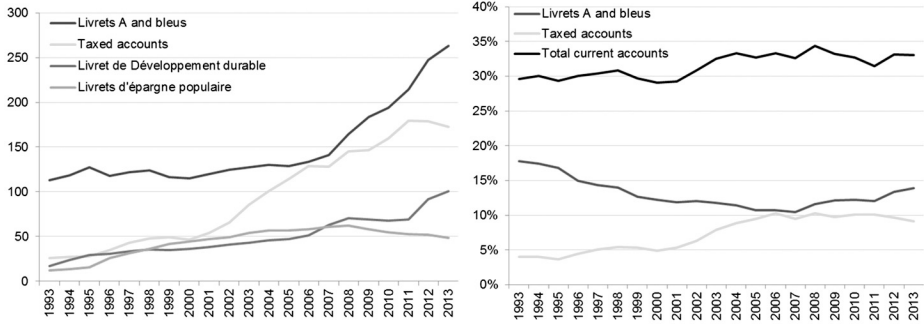
The success of the targeted European savings account will depend on its marketability. Although the actual design is still in the dark, the French and Italian models show how to make the product considerably attractive compared to regular saving accounts in the respective markets. As discussed in chapter 2, the most convenient way to attract savers on the European level would be to offer above-market interest rates, as is the case in France. In Italy, lower charges compared to the very expensive conventional banking products likewise create a monetary incentive especially for people with small saving amounts. Consequently, in both countries state-sponsored savings are a success story. The Report of regulated savings 2013 of the Banque de France states that 96% of the population in France has an account (Banque de France (2014), p. 13).

Figure 6 shows that the outstanding amounts in Livret A and Livret Bleu have continuously risen over the last 20 years. This is in line with the continuous rise in the total deposits of French households over the timespan (data: Euro Area National Accounts ECB). Taxed accounts (ordinary bank current accounts) profited even more from this increase, as is depicted on the right. The share of

Figure 6. Development of current accounts in France over time.

Left: Outstanding amount end-of-period in EUR bn.

Right: Outstanding amount as percentage of total deposits in France (sight deposits, termed deposits, and current accounts).



Data: Banque de France.

taxed accounts of total deposits gained since 1995 while the share of the Livrets declined, at least until 2007. This signifies no lack of attractiveness of the state sponsored accounts, but must be attributed to the cap on the maximum amount disposable in the Livrets A and Bleu.

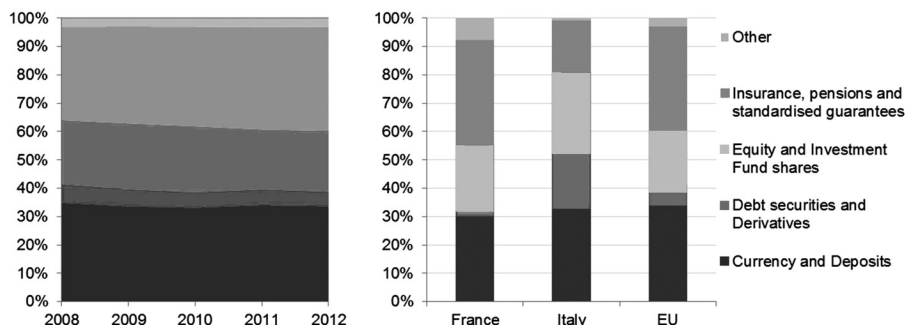
In Italy, where no such cap applies, post office deposits' market share of sight deposits shifted from 16% in 1995 to nearly 30% in 2012, and its share of total financial assets of Italian households, including risky assets, grew over the same period from 6% to 9.3%. The Poste Italiane reckons in its annual report (Poste Italiane (2014), p. 115) that it was able to collect about 19 billion euro with its new bond and current account products.

From which alternative investments would the money for the state-sponsored savings accounts come from? Compared to classical savings products, the participation rates in riskier assets are very low. For example only 5.3% of households in the Euro Area hold debt securities and only 10.1% hold equity (ECB (2013b), p.36). The share rises in households with higher income and higher education. A meagre 1.5% of households with income in the lowest quintile hold debt securities and 2.2% hold equity in their financial portfolios.

As pictured in Figure 7 (left hand side), the portfolio composition of households' financial assets is rather rigid over time<sup>7</sup>. But as the comparison of Italy, France, and the EU 28 (right hand side) shows, the composition may vary across countries. Italian households, for example, hold a considerable share of government securities.

<sup>7</sup> The same pattern of continuity shows for longer periods as well as for most European countries with a few exceptions. For example, Italian households started to invest more in mutual funds during the 90ies and have later withdrawn from these investments.

**Figure 7. Composition of Financial Assets of Households. Left: Composition of EU 28 in 2008-2012. Right: Composition in 2012 of France, Italy and the EU 28.**



*Data: Eurostat.*

This indicates that inducing a fundamental change in the portfolio composition in favor of the creation of more deposits might be a difficult task. The aim of the European Commission is to mobilize internal savings for long-term investments (COM (2013b), p. 8). But taking the features of the French and Italian products as a benchmark, the European Savings Account would rather be a substitute than a complement to existing saving products for private households. Targeting the European instrument at deposits, which constituted about 33% of financial assets in 2012 in the EU 28, promises a quick acceptance. However, this acceptance will most probably be at the expense of existing bank accounts. Nevertheless, with regard to the potential of a savings account to generate funds, it is a positive characteristic.

Obviously, without knowing the details of the program, it is not possible to make a sound estimation on how much capital a European savings account could attract. In France, about 20.86% of all deposits are invested in the targeted deposits, in Italy even 25.61%. If we assume that the European savings account will be of similar attractiveness and take these percentages as a benchmark, we would expect to raise, in the long run, the very considerable amount of 1.3 trillion euro (French benchmark) or even 1.6 trillion euro (Italian benchmark) on a European level. However, the existing state-sponsored savings products have a long standing tradition in both countries, and it might take some time to reach similar levels in other countries. Furthermore, in Italy and France we might experience much crowding out between the new European savings account and the already existing programs. Finally, the result will to a high degree depend on the actual design. Given today's level of interest rates close to zero, even a rather small interest rate slightly above the market rate would create a strong interest of the depositors. The total amount would probably be limited not by the demand but by the maximum amount allowed per depositor. Thus, if the conditions are

respectively favorable for the depositors, the European politicians can expect to be able to dispose over a rather large amount of money at last in the medium term. If this is good or a bad feature of a targeted European savings account remains to be seen.

## 5.2. THE ASSET SIDE I: MORE LONG-TERM PRIVATE INVESTMENTS?

In chapter 4 above we argue that the state as a financial intermediary tends to be less efficient than a conventional bank, as it is able to perform the fundamental functions of a financial intermediary only in limited and defunct way. The decision of the state agencies to grant a loan is biased, their incentives to properly monitor the already existing engagements distorted, they might not manage liquidity risk properly, and they cannot participate in implicit contracts to create a valuable long-term financing relationship. The resulting inefficiencies make the state intervention costly for the tax payers, who have to underwrite the guarantee for the states banking activities. However, maybe this price must be paid to enhance the situation elsewhere. In the following we assess the effects of the intended measure on the banking market and the market for the financing of long-term investments. The preferable effect of such a program in a market economy would be that it could trigger more private long-term investments.

Before discussing this volume effect, it is worth to reaffirm that any subsidized offer by the state distorts markets. The private providers of the respective services or products have to cope with unfair competition. They might suffer from reduced profitability of their business, or might even be driven out of their markets. This is no particular argument against the European savings account, as it also holds for the loan subsidies of the already existing public development banks. Even in their case, the positive effect of the respective measure should be greater than the efficiency loss from the market distortion they cause. What might bother us in the case of the European savings account is the sheer volume that might be employed to distort the markets.

Public development banks often argue that they are able to initiate large funding volumes for companies or other debtors with a rather small subsidy. In this sense, they promise to leverage the effect of the invested tax-payers' money. The recent European Investment, for example, intends to mobilize more than 315 billion Euro through public guarantees and capital of only 21 billion euro. Thereby, it seemingly intends to tap the global capital market. A positive aspect of such punctual subsidies is that they have no strong feedback on the refinancing capacity of financial intermediaries. In contrast, the European savings account exactly assaults this refinancing capacity. Even if a portion of the funds the banks

collect for the state remains in the administrating bank, the main goal of the Commission with the introduction of the European savings account is to collect funds for its own uses. Thus, a European savings account would have a direct negative effect on the core business of banks by narrowing their deposit base. If deposits are withdrawn, *ceteris paribus*, the balance sheets of the banks shrink, and they have to downsize their asset portfolios. The downsizing would certainly also affect the traditional loan business, and the more so as long as banking regulation privileges the investments into securities and in particular state bonds over corporate loans. An assessment of the net effect of a targeted European savings account must take this crowding out of bank loans into account. The resulting numbers would certainly be much smaller than the gross volume of projects financed with funds from the European savings account.

Could the net effect on long-term private investments be even negative? Financing long-term private investments is not the only investment objective. The other is financing public investment. If the states draw heavily on the funds of the European savings account, the negative effect of the reduced financing of long-term private investments by banks can be even stronger than the positive effect of the increase of the same investments with funds from the European savings account. Conversely, if the banks were greatly involved in state financing before the introduction of the European savings account and the rules of the European savings account contained an efficient safeguard against a seizure of the money for state financing, the opposite might occur. The latter looks not very probable, as the states might not be inclined to agree to the implementation of an instrument that makes it harder for them to finance their deficits.

Finally, it should be noted that the defectiveness of the state in its assumed role as financial intermediary does not only generate costs for the taxpayer, but also influences the quality of its investments from an economic perspective. The argument is twofold: Functioning capital markets tend to direct capital to its most valuable uses. Even banks, as an important actor on capital markets, have to follow this goal to survive competition and maximize profits. State agencies channel capital to uses that are in line with the respective law and political objectives. Thus, even if we doubted that the capital markets are functioning properly, letting the state decide where to invest would lead to a misallocation of capital.

Secondly, the special long-term relationship with banks in some European countries contains not only value for the banks but also for the companies. They gain a reliable long-term support they can particularly draw on in crisis situations. In an optimal case, the implicit contract embedded in this relationship functions like an insurance against any economically inefficient default. Thus, if default destroyed value, the entrepreneur and the bank should be able to find a

solution to elude it. Further, in particular regional banks internalize even some of the negative external effects of a default, as many of the employees and business partners of the defaulting company in the respective region are also clients of the bank. Thus, when deciding to default a client, they would even take some of the social costs of the default into account. Such insurance is of great value in particular for companies that want to undertake long-term investments. The state as a financial intermediary cannot create value in such a way.

In the European Union, corporate governance efforts made at the EIB try to mitigate some of these problems. But the behavior of a political bank will never be moved by market forces. After all, its managers are not economically liable for bad decisions, as the bank enjoys a bail-out guarantee and its employees can always exculpate themselves as long as their actions are in accordance with law. In practice, the European Union is well aware that it cannot provide the same relationship and intermediation quality as a local bank. Basically, the EIB outsourced its loan business for SMEs and other corporations and public sector bodies back to regional banks. It is not evident that such an outsourcing solution can be efficiently established for the funds from the European savings account. Banks would be left in the role of an administrator of an activity that is cannibalizing their own business. Thus, they have neither the scope nor the incentives to enhance the quality of the decisions of the EIB.

To sum up: It is not certain that the European savings account will lead to a net increase of long-term private investments. But even if the supplanting of banks as financiers led to a larger volume of long-term private investments, the economic value of the investments will be lower than expected. And even if, through strongly subsidizing the loans, the European Union were able to boost long-term private investment with the funds from the European savings account (and might enjoy some positive growth effects of the resulting bubble in the short run), the inefficient use of capital is, as the investment bubbles of the past show with great poignancy, not beneficial in the long run.

### 5.3. THE ASSET SIDE II: MORE LONG-TERM PUBLIC INVESTMENTS?

A European savings account would make funds available to the governments. In fact, in the Italian prototype, private and public investments today have a roughly equal share in new investments. Expecting a similar allocation of funds for the European instrument, this is not equivalent to saying that the introduction of a European savings account would lead to a similar net increase of long-term public investments. As already discussed, the states could use the funds of the European savings account for investments that would have been financed through the

ordinary budget otherwise, and they could simply label other public expenditures as long-term investments, as most state activities have at least a long-term dimension.

For an assessment of the effects of a European savings account on the states behavior, we have to distinguish again between the two cases: Either the new funds substitute ordinary financing resources for the state budget. In this case the level of state debt would not be changed. Or the funds are an add-on that allows states to expand their level of spending and debt. In the first case, receiving funds from the European savings account would imply a commitment of the respective governments for more long-term public investment. This commitment is not necessarily binding, and, as discussed above, creative governments will easily find ways around it. The degree of credibility of the commitment depends on the urgency of financial needs of the respective government. Governments with sufficient financial breathing space can stick to these obligations with ease, whereas governments in a financial squeeze cannot. Thus, even if the aggregate net effect on long-term public investment in Europe were positive, most of this expansion might take place where it is not really needed.

An assessment of the second case is highly freighted with ideological ballast. The European Union forced severe austerity measures on some European countries as a precondition for financial support. In some of these countries, this had the aspired effect. In others, it did not work. The reasons are multifold. One school of economic thinking sees the main culprit for this failure not in the economic policy of the respective countries but in the measures that were forced on them by the European Union. For these economists and politicians, any instrument to bypass the budget constraints would be beneficial.

This is not the place to discuss the economic plausibility of this type of reasoning. Instead, we might ask ourselves if we can expect more long-term public investment in the respective countries. There are two reasons to doubt this, one political and the other ideological. Again, governments in a financial squeeze and with great difficulties to sustain themselves have better uses for additional money than to spend it on projects that will pay off in the far future. And furthermore, economists who are, even for highly indebted countries, in favor of an expansion of state debt to trigger off an economic recovery are mainly arguing that the ready money should boost consumption. The reference to long-term investments in their reasoning often looks more like a camouflage to make the expansion of state debt more acceptable for their critics. They might justify this duplicity with their believe that everything will be in line in the long run even if the states used the additional money mainly for consumption purposes: If the economy takes off, taxes will soar and the governments will have more resources available in their budget for long-term public investments.

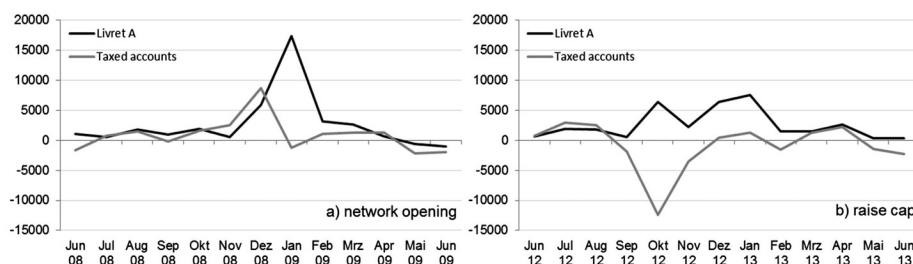
This might be true or not. At this place we have to state that even an expansion of state spending and state debt through the instrument of a European savings account will not necessarily lead to an immediate surge of public long-term investments. Especially in the countries that are still suffering from the financial crisis and where the deficiency in long-term public investments is largest, the pressure on the politicians to divert funds to other purposes is particularly strong, and the ensuing positive effect might be rather small.

The expansion of state spending and state debt via funds from a European savings account certainly has a strong political connotation. It would contain an implicit break of European agreements to limit state debt and it threatens to undermine parliamentary budget control. European decision makers could use the instrument to bypass not only parliamentary control, but also the control of their behavior through capital markets and through the public. However, the political repercussions of a European savings account in the context of the European debt crisis go beyond the purpose of this paper.

#### 5.4. THE LIABILITY SIDE I: CROWDING OUT AND THE CONTROL OF BANKS' RISK TAKING

While this inefficiency due to misallocation of funds happens on the asset side of the banking sector, the liability structure will change as well. Three events in the most recent history of the Livret A show the potential for a crowding out of conventional deposits. On 1<sup>st</sup> January 2009 the distribution network of Livret A accounts was opened to all banks in France. And on 1<sup>st</sup> October 2012 the cap on the maximum amount disposable was raised from 15.300 euro to 19.125 euro and again on 1<sup>st</sup> January 2013 to 22.950 euro. Figure 8 shows the flows in and out of the Livret A and taxed accounts around these dates.

Figure 8. Flow of funds in EUR Mil. in French current accounts. Before and after a) opening the network for private banks (left) and b) raises in the maximum amount disposable (right).



Data: Banque de France.



The Livret A accounts experienced high inflows on all three dates. The new network of commercial banks collected 30.3 billion euro within the first year (Banque de France (2009), p. 24f.). As the graphic shows, this was not paralleled with a distinct outflow of funds from ordinary bank accounts. In January 2009, 1.185 billion euro flowed out of taxed accounts. Although the amount of outflow is not unusually high, the timing is. Like stock markets, current accounts show seasonal monthly patterns. On average, flow of the last ten Januaries preceding 2009 was positive. The raise of the cap in October 2012, however, was accompanied by the highest outflow of 12.422 billion euro from taxed accounts. Albeit the inflow in Livret A was smaller and the data does not tell directly where the funds ended up, the simultaneity of the biggest outflow with the raise in the cap should not be accidentally. The second, somewhat smaller raise of the cap in January 2013 did not have a very pronounced effect.

Thus, we can expect that the introduction of a targeted European savings account would lead to a marked reallocation of deposits. The banking sector would lose deposits at the expense of a new European fund. If the European savings account is subsidized with an interest rate above the market interest rate, households would prefer this account over their regular account. In the extreme case, the amount each household can deposit is not capped. Then it would be reasonable for the households to transfer all their deposits into the new account. Banks would lose their deposit base which is an essential source of stable funding.

The relevance of deposits of households for banking stability is acknowledged by the latest regulatory reforms. Basel III introduced the Net Stable Funding Rate (NSFR) to enforce a sustainable funding policy of banks. Amidst equity and long-term funding, retail deposits are the one short-term form of acceptable “stable funding”. The introduction of a European savings account would countervail the intentions of the Basel framework. Furthermore, banks have to turn to alternative ways to fund their lending activity. Regulators would certainly like to see them replaced by longer-termed liabilities on the capital markets. From the banks perspective, this would be rather costly and reduce the profits from term transformation. Thus, banks either had to reduce their investments, which would include the financing of long-term investments, or rely on short term financing from the capital market. Both effects would certainly not be in line with the intentions of the legislators.

From the regulators perspective, an answer could be to enforce a higher degree of maturity matching to guarantee the liquidity of banks even under stress. However, the maturity mismatch not only serves the demand of the banks’ clients. It also plays an important role in the control of banks. FLANNERY (1994) and DIAMOND and RAJAN (1999) argue that, due to opaque nature of the banks’ asset portfolio, it requires demand deposits to discipline the risk taking behavior of the

banks' managers. The opaqueness is a result of the information asymmetry between lenders and borrowers, respectively depositors and entrepreneurs, which can only be resolved through costly monitoring. To minimize monitoring costs, the depositors delegate this task to an intermediary (DIAMOND (1984)). However, the intermediary could exploit the information asymmetry to its advantage by increasing the risk of its portfolio. To monitor the intermediary in order to prevent this would presumably be even more costly than monitoring the borrowers. Thus, the depositors need another instrument. Given that they choose a demand deposit, they can protect themselves through an immediate withdrawal of deposits whenever they observe any sign of a behavior of the intermediary that might endanger the deposits. If a sufficient number of depositors do alike, either because they also observed an adverse behavior of the bank's management or apprehend the withdrawal of the other depositors, the bank will be bankrupt before the management can create an even greater damage. In this way, demand deposits are strong instrument to discipline the risk taking behavior of bank managers. FLANNERY (1994) compares this threat to run with other common alternatives (covenants, secured debt, leverage constraints) used by debtholders to mitigate the risk-taking incentive. He states that none of these options is easy to apply to banks because of the nature of their asset portfolio.

DIAMOND and RAJAN (1999) reason that the financial fragility of banks, i.e., short-term borrowing and long-term lending, is not merely a byproduct of intermediating different liquidity preferences, but a necessity to create additional liquidity in the economy. Long-term oriented investors do not face short-term liquidity needs and could, therefore, lend directly to entrepreneurs. By putting their money at risk, they would have a strong incentive to monitor the entrepreneurs' actions closely. A bank would not create additional liquidity. It may reduce transactions costs though. In contrast, short-term oriented lenders would have to liquidate the asset of the entrepreneur at a haircut in case of arising liquidity needs. An intermediary could borrow new funds from other investors against the existing asset by the promise to monitor and collect the full revenue of the investment. Thereby, the intermediary creates new liquidity on both the asset and the liability side. The promise is credible because of the threat of the depositors to withdraw their funds, if the intermediary acts otherwise.

The results hold with two caveats. Firstly, most countries today have established deposit insurance schemes to prevent depositors from running on the bank. Deposit insurance can undermine the disciplinary effect of using demand deposits. But the most recent history suggests otherwise. The run on Northern Rock in September 2007 proofs that even insured depositors will withdraw their funds eventually. After all, customers still face administrative expenses, illiquidity during the processing of legal acts and insecurity about the legal enforcement, whereas the costs of withdrawing are rather low. Nonetheless, we assume that

deposits that are not insured have a stronger disciplining effect than insured deposits.

Secondly, deposit insurance has been installed because a run can also be caused by sheer panic, besides the information-based run that disciplines the banks (DIAMOND and DYBVIK (1983), JACKLIN and BHATTACHARYA (1988)). It is worth noting that such a panic run is not necessarily caused by irrational behavior of the depositors. The run causes a costly liquidation of long-term assets of the bank, and thereby the apprehension of the depositors becomes a self-fulfilling prophecy. Whereas the disciplining run contributes to the efficiency of the financial system, the panic run destroys value. Thus, whereas bank managers should be aware that they might get punished for excessive risk taking through an information-based bank run, the probability that the bank is destroyed through a panic run should be as small as possible. In the current section, we focus on the first effect, the following deals with the second.

The introduction of a European savings account and the reallocation of deposits will reduce the pool of disciplining funds for banks. This holds for both the total amount of demand deposits and, in particular, for uninsured deposits that have the strongest disciplining effect on banks' behavior. In Europe, at least 100.000 euro per depositor and per bank have to be insured. If the average size of deposits decreases due to an outflow to the new targeted European deposit, this will have the strongest effect on the uninsured portion above 100.000 euro. Consequently, its relative share decreases. The incentives to take risk increase because of decreasing profit margins and a less intense threat of being disciplined by a run.

A further increase in the equity requirements for banks would moderate these risk-taking incentives. ADMATI et al. (2011) claim that banks should hold a much larger proportion of equity on their balance sheets anyway. On the contrary, banks already whine under the pressure of the actual increases in equity capital requirements. With regard to banks' economic function as a financial intermediary, substituting deposits with equity is not an improvement and should be avoided if alternative mechanisms to reduce risk incentives were available. Alternatively, banks could issue new short-term debt, like commercial papers, to refinance their investments. These fulfill a similar disciplining function. Financial investors that hold these papers usually have more experience in evaluating financial assets. But contrary to households, financial investors hold much better diversified portfolios. They have a strong incentive to punish bad behavior *ex post* by not rolling their investment over. But their interest is purely short-term, because they can easily switch to other short-term investments. Therefore, they are more willing to accept risks that realize over a longer time horizon.

Lastly, banks could use long-term debt to refinance themselves. As stated above, regulators would approve such a shift in the financing composition of banks. But,

as FLANNERY (1994) and HART and MOORE (1988) argue, banking risks may be observable but not contractible. Especially long-term contracts cannot incorporate all risks banks might take in the future during time to maturity. Debtors would have to enter into renegotiations in case they observe too risky behavior at the bank. In consequence, a shift in the composition of banks' liabilities can reduce the financing fragility. Banks would provide less liquidity, while the public sector would start providing some by issuing the European savings accounts. The economic role of banks is reduced, but their risk-taking spurred.

### 5.5. THE LIABILITY SIDE II: PRIVILEGED DEPOSITS AND THE RUN ON THE BANKS

Apart from a change in the risk taking incentives of the bank managers, a subsidized savings account as an alternative to the conventional bank deposits could also have a direct impact on the probability of a panic run and thereby on the stability of the banking system. If the European savings account has a feasibly low cap on the amount that can be deposited, we expect households to hold both, subsidized and unsubsidized, deposits. HAKENES and SCHLIEPHAKE (2014) analyze the resulting changes in the behavior of the depositors and their willingness to run in a dynamic setting. They argue along the lines of the classical two-period framework of DIAMOND and DYBVIK (1983). Their model contains three types of investors (patient, highly impatient and lowly impatient) and two types of banks (subsidized and unsubsidized). After the first period, some investors find out that they instantly need money. The highly impatient investors would withdraw all deposits, whereas the lowly impatient investors need less money and would only like to withdraw the least attractive deposit, in this case the unsubsidized deposit. Consequently, the flows of funds in unsubsidized accounts would be more volatile than in their subsidized counterparts.

Patient depositors do not need any interim liquidity and could therefore keep the money in the bank until the end of the second period. However, they receive a signal about the quality of the bank's asset. If this signal is too negative, they would likewise prefer to withdraw prematurely. Furthermore, they can also observe the withdrawals of other investors. If the level of withdrawals is rather high, the bank would be obliged to take on a high volume of costly liquidation of long term investments. The patient investors are aware of this effect. Consequently, it requires a much better private signal to prevent them from a premature withdrawal of their deposits.

The setting shows the very realistic pattern that the volatility of the flow of funds determines the probability of a run on the respective banks. Note that this change

in volatility is not caused by any change in the behavior of the bank's managers. Compared to a situation without subsidized deposits, the probability of a run decreases for the banks that are financed through subsidized deposits. In our case, this would be the state agency managing the funds from the European savings account. The remaining banks are confronted with a higher probability of a bank run. HAKENES and SCHLIEPHAKE (2014) show that the latter effect will be stronger than the former. Overall, the banking system gets more prone to instability due to bank runs. In our case, the subsidized deposits will be insured by the European Union anyway. Thus, only the latter effect remains: the systemic risk of the banking system increases.

An increase in the systemic risk gets even more probable if we take contagion into account. If the banks were connected, for example through an interbank lending contract (ALLEN and GALE (2000)) or through correlated asset holdings (ARCHARYA (2009)), the default on an interbank loan or a fire sale on the asset market will have immediate effects on other banks. Lastly, if investors had not only information about their own bank but also about the connectedness of the banks, the instability at one bank might induce them to run on the other banks (KRÜMMEL (1983), DEVENOW and WELCH (1996)). In a banking system with contagion effects, the stability of one bank cannot offset instability at another bank, since these will affect all connected banks as well.

## 5.6. CONCLUSION: STRUCTURAL CHANGES OF QUESTIONABLE MERIT

It is no easy task to assess a concept whose details are still mainly in the dark, even though the French and Italian examples help to some degree. However, we can find good arguments to doubt that the European savings account will be a useful instrument to reach its declared objectives on the financial markets. The positive effect on both public and private long-term investments in the aggregate might be much smaller than expected. And we can expect side effects due to the crowding out of conventional bank deposits and the privileged status of the new European savings account that increase the problem of inherent instability of the banking system.



## 6. CLOSING REMARKS

In the preceding chapters, we take a close look at the effects of the introduction of a targeted European saving account that would be designed in likeness to already existing similar concepts in France or Italy. We try to identify a market failure in the financing of long-term investment which such a state intervention could mend. We analyze the capability of the state as financial intermediary, as the European savings account would require the state, i.e., a state agency acting on its behalf, to perform this task. And we finally delve into potential structural changes in the financial markets, again with particular regard to long-term investments.

The overall result is profoundly negative. Firstly, we fail to establish a dependable link between the ongoing depression of long-term investments in some European countries and a market failure in the market for the financing of such investments. It cannot be denied that the level of long-term investments is below its optimum, and well-meaning politicians would like to see more of it. However, a market result that is not in line with our own wishful thinking does not per se represent a market failure. What is lacking is causality. If, in some European countries, companies do not want to undertake long-term investments and/or banks are not willing to finance such endeavors, the first and direct reason for this are the negative surrounding conditions, i.e., the high degree of uncertainty, the erratic economic policy, the lack of market-oriented structural reforms and the endemic corruption. The reaction in a functioning market economy is to abstain from undertaking and financing long-term investments under such conditions.

Secondly, the state is not a good bank. Particular with regard to the financing of companies, it can only imperfectly perform the tasks of a financial intermediary. On the one hand, this results in a bad investment performance of the funds of the European savings account. In the worst case, the European tax payers will have to cover the losses. How high these losses might be depends on the quality of the governance of the new institution. On the other hand, the loans granted by a state agency have lower economic value. State bureaucracies cannot enter into special long-term relationships based on implicit contracts. Such relationships are particularly valuable for SMEs, as they increase their resilience against crises. The importance of relationship banking differs greatly between the European countries. Therefore, this negative external effect of a European savings account would have rather asymmetric consequences.

Finally, we expect that the positive effects on the market for the financing of both private and public long-term investments might be rather small. This is not surprising with regard to the negative answer on the first question. If there is no clear link between a market failure and the introduction of a European savings

account, the intended state intervention has no real economic focus. However, we detect an apparent destabilizing effect on the remaining banking system. Risk discipline of the banks is reduced, and the likelihood of panic runs increases.

Is there any positive conclusion from the results of the study for the design of a European banking system that better supports the economy? Both the French and the Italian economies did not perform very well in the aftermath of the financial crisis. Both countries have a strong industrial base and many very successful SMEs that formed the backbone of the economy in the past. Nonetheless, the economy and the SMEs did not recover in a satisfactory way. Some of the reasons for this failure are political. However, it is worth to inquire the role of the banking system in this respect, in particular with regard to the financing of SMEs. From this starting point it might appear that the relative inefficiency of the banking system can at least partly be caused by the fact that state-subsidized deposit schemes rob them of a good and stable portion of their deposit base. If this is the case, the abolishment of both systems would be a valuable contribution to the future economic success of the European Union.



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