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How to develop a public debt market for retail investors?

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How to develop a public debt market for retail investors?

Executive Summary

While the major share of public debt by most states around the world is owed to institutional investors in the form of wholesale bonds, instruments specifically targeted at retail investors are gaining importance. Indeed, such retail bonds face some very positive features. From a fiscal point of view, retail bonds can decrease funding costs and stabilise the funding basis. In particular, they can reduce the dependency from foreign investors and lessen the vulnerability to exchange rate fluctuations. From an economic point of view, retail bonds can foster the saving activity by the population and bring cash hold under the mattress back into the formal economy (mobilisation of savings). On top, they can contribute towards developing capital markets. Given these positive features, it is hardly surprising that many countries have successfully developed a public debt market for retail investors. In view of Ukraine's plans to issue retail bonds soon, we review the international experience with these instruments and comment on the recent legislation adopted by the Cabinet of Ministers in Ukraine.

The bonds foreseen the relevant resolution are pretty simple: Bearer securities in documentary form with a face value of UAH 500, a 12 months maturity and fixed quarterly interest payments of UAH 20, which implies a yearly interest rate of 16%. In our view, this "plain vanilla"-approach is the right way to get the market started and we clearly support this resolution. At the same time, we think that this initial stage should also be used to get more information about the preferences of the population (i.e. about the demand side). Consequently, we suggest offering not just a 12-month, but also a 6-month bond to savers. By comparing the demand for the two issues, the Ministry of Finance can gain valuable experience about the preferences of the people regarding maturity.

In the long-term, we suggest introducing "paperless" (i.e. book entry) bonds, in order to reduce the relatively high issuance cost, which is clearly the most serious disadvantage of this instrument. Also, in order to increase competition at the distribution level, the marketing channel should be broadened from currently only Oshchadbank to all future primary dealers in government bonds. Finally, once the market gets going, the effective maturity of the bonds should be extended using different mechanisms.

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1. Introduction

Compared to many other countries, Ukraine has a relatively low level of public debt. Nevertheless, the country currently faces some problems serving the outstanding sovereign bonds and to raise new debt. While the main reasons for these problems lay in the current global financial crisis, the refinancing difficulties have also to do with the fact that most of the holders of Ukrainian sovereign debt are institutional investors and/or investors from abroad. The latter react generally more sensitive to turbulences than domestic bond holders. In addition, due to the high share of bonds denominated in foreign currency, the creditworthiness of Ukraine has suffered as the hryvnia has depreciated dramatically against major international currencies. Summing up, this means that the current funding basis is too narrow and the debt structure vulnerable to external shocks. Retail bonds (i.e. saving instruments for retail investors) could be an adequate mean to mitigate some of these challenges.

Against this background this paper intends to give answers to three questions, amongst others:

- Does it generally speaking make sense to establish a retail bond program?
- If so, which instruments should be introduced in Ukraine in the short-term?
- What should be the long-term objectives of a retail bond program?

2. Reasons for developing a retail market for government bonds – pros and cons

In most countries the main share of public debt is hold by institutional investors. Retail investors hold government bonds mostly in an indirect way through mutual funds, pension funds, life insurance etc. This is true for most developed countries as well as emerging economies. The main arguments against the introduction of retail bonds typically are the following ones:

a) Costs: It is said that it is more cost efficient to sell big tickets of government bonds to a few institutional investors instead of selling the bonds in small denominations to millions of retail clients. Retail investors could, the argument goes, get exposure to sovereign debt through financial intermediaries like mutual funds.

b) Competition: Often the financial sector claims that the financial products offered by the state represent an unfair competition, making it more difficult to gain deposits from the private sector as well as lowering margins when funds and other products are sold.

c) Liquidity: Finally, the liquidity of the government bond market might suffer when a bigger share of public debt is sold as non-marketable bonds to retail investors.

While these arguments shouldn't be ignored, especially the points b) and c) are not of bigger relevance as long as the share of retail holders of government bonds remains below 20% or so. At the same time there are a few arguments which support the view that the development of a retail segment in the public debt market can make a lot of sense:

a) Lower funding costs and stabilisation of the funding basis: The government can broaden its funding basis, intensifying by this way the competition for public debt instruments amongst investors. Ideally this leads to lower refinancing costs.

b) Lowering dependence from foreign investors and immunizing against exchange rate movements: If a big chunk of public debt is financed in foreign currency the targeting of retail investors may represent an important step in the process of diversifying the structure of the public debt towards a bigger share of domestic currency and diminish the dependency from foreign investors. When Canada tried to revive its retail government bond program in 1996 one important target was to reduce its dependency from investors from abroad. In addition the impact of currency movements on the sustainability of the public debt could be reduced.

c) Emergency lending: In the past many states have used retail bonds as a mean to finance wars or to get finance for reconstruction in the aftermath of natural catastrophes. In the US so called Liberty Bonds were issued to fund World War I.

d) Fostering saving activity: The implementation of a retail bond program could serve the goal to foster a saving culture of private households. E.g. the retail program of South Africa explicitly focuses on the goal to change the weak saving culture.

e) Improving the infrastructure of capital markets: If the public sector creates capital market instruments, which target retail investors, these could serve as a benchmark for the private sector. E.g. it may be possible that corporates start to issue small denominated bonds targeting retail investors as well.

It is clear that there is a trade off between higher costs, which come along with the development of the retail bond market on the one hand, and the advantages of having private households investing directly in the public debt market, on the other hand. At the end of the day the question if the implementation of a retail government bond market should be pursued depends not only on the pecuniary cost-reward structure of the project, but also on the socio-economic aims the government has in mind, such as improving the saving culture and the mobilisation of cash hold at home by the population). In addition, it should be considered that some targets may not be reached in the short, but rather in the long term.

3. Which instruments should be offered to retail investors?

3.1. Preferences from retail investors differ from those of wholesale investors

As a matter of principle the preferences of retail investors differ from those of institutional investors:

- **Denomination**. Small denominations are indispensable for retail investors to make government bonds accessible to private households with middle to low income. Wholesale investors only invest in much higher amounts.
- **Complexity**. Retail investors prefer generally easy-to-understand financial instruments. Ideally it should be possible to describe the main characteristics of the instrument in one or two sentences. E.g. a fixed rate bond could be described by its coupon and its maturity. In contrast, wholesale investors like also to buy more complex products e.g. linking the return to different kind of events, if this goes along with the possibility of higher returns or a better fit to e.g. the liability structure of the company. What is considered to be an “easy-to-understand” instrument may vary between countries.
- **Risk aversion**. It is safe to assume that the risk aversion of retail investors is on average higher than the risk aversion of institutional investors, although this attitude could change with the economic cycle. Often private households are inclined to foreswear some yield if the issuer guarantees that no capital loss will occur, even in the event of selling the instrument before final maturity. Likewise many retail investors fear liquidity risk. Instruments which allow investors to withdraw the money before final maturity are probably favoured against those ones which do not carry this possibility, even at the cost of accepting a lower coupon.

- **Taxation**. Retail investors may find it attractive to buy financial instruments which are exempt from tax payments, not only due to the idea of saving money but also due to the fact that the administrative costs for the investor are much lower under these circumstances.
- **Documentary form**. Under certain circumstances it could make sense to deliver a true security document (or at least to provide for such a possibility). A simple record in the security account may not be sufficient for some investors, especially in such countries, where the capital market structure is less developed and the legal uncertainty leads to distrust against public and private institutions.

Against this background, many governments have decided to offer various products which are tailored especially for retail investors and which are in many cases not marketable. In many countries retail investors have the possibility to buy marketable securities in small denominations, though.

Table 1

Retail government debt programmes

Countries	Marketable	Non marketable
Belgium		Yes
Brazil	Yes	
Bulgaria		Yes
Canada		Yes
China		Yes
Germany	Yes	Yes
Indonesia		Yes
India	Yes	Yes
Ireland	Yes	Yes
Italy	Yes	Yes
Japan		Yes
Pakistan	Yes	Yes
South Africa		Yes
Sweden	Yes	Yes
UK	Yes	Yes

Source: The Euromoney international debt capital markets handbook (2007)

3.2. Characteristics of debt instruments for retail investors - Pros and cons of different instruments

Apart from the general characteristics of public debt instruments tailored for retail investors, the exact design of those instruments depends very much on the private investor's experience with respect to their savings in the past. Countries where hyperinflation occurred and/or people suffered due to massive depreciation of the domestic currency would certainly look for instruments which act as a long term maintenance of value. This could be government bonds which are linked to inflation or to a foreign currency. In countries with a more stable macroeconomic background, investors might concentrate more on the issue of a stable yield. Below we will outline in a general way which retail instruments could be offered, analysing the main advantages and disadvantages for the investor and the state. The instruments a. to d. are discussed under the assumption that they must be hold until the end of maturity and that they are not marketable. This means that investors face a liquidity risk. Point e. describes, how the "hold-to-maturity"-rule can be soften.

a) Inflation-indexed bonds: The coupons as well as the capital amount are usually linked to the consumer price inflation index

- Advantages for the investor: The investor is able to protect his assets against the loss of purchasing power. Indirectly he hedges against currency depreciations as in many countries an increase of inflation goes along with a depreciation of the currency (especially in longer periods of time)
- Advantages for the government: Assuming that inflation diminishes after the issuance of inflation-linked debt, the debt service would fall. It could even be argued that the issuance of inflation-linked debt represents an incentive to conduct an anti-inflationary policy.
- Disadvantage for the investor: The general consumer price inflation might deviate from the inflation of the individual basket of consumer goods of the investor. Therefore it is possible that – despite investing in inflation-linked instrument - people experience a loss of purchasing power.
- Disadvantages for the government: If inflation increases, the debt burden increases as well. There is no possibility – as is the case with classical fixed rate instruments – to lower the debt burden through higher inflation.

b) Exchange rate-indexed bonds: Both the coupon and the capital amount are linked to an international currency such as the USD or the EUR.

- Advantages for the investor: The investor gets the possibility to maintain the asset's value in terms of the foreign currency the instrument is linked to. For those countries where inflation is high and investors have little trust in the domestic inflation index, a linkage to an international currency might be preferred versus an indexation to inflation.
- Advantages for the government: As the currency-linked debt instrument is denominated in domestic currency, the public issuer does not need to have foreign exchange to serve this type of debt. In addition, the ex-ante yield of this debt should be lower than for fixed rate bonds.
- Disadvantages for the investor: The conservation of the purchasing power may be far from perfect as imported goods usually come from different countries with different currencies. Apart from that it is possible that the corresponding foreign currency depreciates.
- Disadvantages for the government: When the domestic currency depreciates heavily, the debt burden increases correspondingly. A vicious circle could evolve, as the higher debt burden means that the credit worthiness of the sovereign will suffer, which could lead to capital flight, meaning that the currency would loose further value and so forth.

c) Bonds with variable interest rate: In this case the coupon is usually connected to a short-term key interest rate and adjusted on a regular basis (e.g. in Brazil, where the share of variable debt is significant, the central bank rate has been chosen). The coupon is paid on a quarterly or semi-annual basis. The capital amount does not change.

- Advantages for the investor: The investor does not run the risk of locking-in a low coupon in an environment of increasing interest rates. In addition, investors are protected to a certain amount against some kind of inflation assuming that short term interest rates move up when inflation increases. By the same argument, variable rate instruments offer a certain protection against depreciation of the domestic currency. However, in both cases it is only the coupon payments that

may adjust indirectly to inflation and/or currency movements, not the capital amount.

- Advantages for the government: Usually variable rate notes could be issued with longer maturities than fixed rate notes, as the investor does not run the risk of having locked in a low coupon in an environment of increasing interest rates. For the government it is easier to lengthen the maturity structure of the public debt portfolio thereby diminishing the refinancing risk
- Disadvantages for the investor: Usually short-term interest rates are lower than long-term rates, which means that investors pass on some revenue.
- Disadvantages for the government: The interest rate risk increases. If this instrument represents an important share of total public debt, a vicious circle can evolve: Assuming an increase of capital flight, this would go along with higher interest rates thereby increasing the debt service for variable interest debt. The credit worthiness of the sovereign would be hurt, leading to an accelerated capital flight and so forth.

d) Fixed interest rate bonds: The coupon is determined beforehand and is paid once or twice a year. The capital amount will be repaid at the end of maturity.

- Advantages for the investor: Assuming an adequate compensation for the risks of buying this sort of instrument (especially risk of higher inflation), the yield of these bonds should be relative attractive. A further significant advantage is its simplicity and transparency. In the case of linked bonds, a manipulation by the issuer of the underlying variable (inflation, exchange rate, etc) cannot be excluded. Consequently, fixed interest rate bonds are especially appropriate for an initial stage in countries in which the government faces credibility problems concerning the correct calculation of the payments due.
- Advantages for the government: Fixed rate instruments alleviate the debt management of the government as the debt service payments of the future are well known (in contrast, in the case of e.g. variable interest rate bonds cash outflow is not known exactly). In addition, if inflation increases the debt burden with respect to fixed rate debt decreases.
- Disadvantages for the investor: The investor exposes himself to higher inflation. When inflation increases the real value of the coupon payment and the capital amount decreases.
- Disadvantages for the government: In an ex-ante view fixed interest rate bonds represent the most expensive way to finance public debt.

e) The instruments a. to d. could be endowed with the option to return the bond to the issuer before the final maturity (put option). For the design of this option there are some alternatives, e.g.:

i. Returning the bond with a predefined notice period of e.g. 3 months
ii. No option to return the bond in the first year, afterwards anytime
iii. Returning a maximum volume of bonds in the period of 1 month/quarter/year
iv. Returning the bond at anytime, however paying a penalty
v. A combination of the alternatives i. to iv.

- Advantages for the investor: The liquidity risk is lower than without such an option.

- Advantages for the government: The sovereign issuer should be able to offer a lower coupon because he bears the risk of early repayment. In an ex-ante view this means lower debt service.
- Disadvantages for the investor: Lower coupon payment than for instruments without put option.
- Disadvantages for the government: Depending on the form of option chosen there emerges the risk of early repayment. In an extreme case (fear of bankruptcy of the sovereign) the option to return the bond will probably be drawn by the majority of the investors leading to a run on the public debt (comparable to a bank run).

f) The instruments a. to d. could be endowed with compound interest rates, which means that coupons are not paid out but accumulated and paid out at maturity. E.g. in Germany retail bonds with compound interest rates are offered.

g) The instruments a. to d. could be marketable instruments. In this case the investor would not face a liquidity risk but a price risk if the bond is to be sold before maturity as the price for the above mentioned instruments will vary. Even in the case of variable interest bonds there is some price risk as the credit worthiness of the issuer may vary.

h) Lottery bonds: These bonds have different designs. They exist e.g. in Ireland, Pakistan, and Sweden. Here we will present the example of UK, where the share of lottery bonds outstanding is around 3%. The investors have the possibility to buy lottery bonds at a minimum amount of 100 Pound Sterling (100 Pound = 100 lottery bonds). By this way they participate at a monthly lottery drawing, were a payout of up to 1 m Pound is possible. There are no coupon payments. The return of the bond to the government without penalty is possible anytime (put option).
   - Advantages for the investor: The investor purchases a combination of a bond and a lot. With luck he can gain much more than with a traditional bond. In addition, the investor is protected against a loss of capital.
   - Advantages for the government: The total amount of payouts may be lower than in the case of classical bonds as people attribute some value to the lottery component of the bond.
   - Disadvantages for the investor: Investors don't have a calculable cash flow.
   - Disadvantages for the government: Additional cost due to the more complex structure of the bond.

i) Saving accounts callable on a daily basis: This is an account where money can be deposited at an adjustable interest rate. Investors have the possibility to withdraw their money on a daily basis (or linked to some conditions like maximum amount per day etc.). In Germany only recently a kind of saving account in the form of a money market bond was introduced last year (see below).
   - Advantages for the investor: A saving account provides the investors with the highest degree of flexibility as a withdrawal of money is possible every day.
   - Advantages for the government: While the investors have the possibility to withdraw their money on a daily basis, there will be usually a more or less constant stock of money deposited in these accounts. This could provide the government with a relatively stable and low cost funding.

- Disadvantages for the investor: The high flexibility of the saving account goes along with a low yield in comparison to instruments with longer maturity
- Disadvantages for the government: Fear of sovereign default could lead to a run on saving accounts.

In practice governments design a number of variations of the above mentioned instruments. Generally we would recommend starting a retail bond program with only a few easy-to-understand instruments. If successful more variations can be introduced which might fit with the preferences of even more retail investors. E.g. in Poland the program started with an inflation indexed bond as it was clear that the citizens had a clear preference for an instrument that enabled them to protect themselves against the loss of purchasing power.

4. Distribution channels and marketing

4.1. Distribution channels

Apart from designing the right financial products it's just as important to find an effective channel to sell the instruments. As a matter of principle the chance to sell the bonds will be the greater the broader the distribution network is. The most cost efficient solution seems to be to resort to an existing network of outlets. This could be e.g. banks with a broad branch network, post offices or supermarket chains. In addition, internet solutions should be pursued. Some of these alternatives are discussed below.

Banks with an extensive branch network

Banks do not have a natural incentive to sell public debt instruments to retail investors, as banks will usually try to sell in-house financial instruments. Hence, the government has to provide for some incentives, e.g. by paying a competitive provision linked to the transaction volume. Alternatively private investors have to pay fees. However, the financial institution may not have the interest to define a fair fee structure for the public debt instruments. If the government implements a maximum fee, the above mentioned incentive problem arises again. The experience of the USA might be instructive in this respect. While there are currently at around 40,000 financial institutions eligible to sell so called savings bonds the fees paid by the Treasury to the banks amount to USD 0.50–0.85 per transaction which covers reportedly not more than 25% of the cost of processing a savings bond purchase transaction. Small wonder that savings bond's share in total privately hold public debt has diminished dramatically over the last decades to only 2.5% per end of 2008.

Net of post offices

Using such a network would usually enlarge the range of coverage especially in the countryside. However, the post office employees would have to be qualified, which means higher investments. In addition the infrastructure investments to carry out financial transactions will be more expensive than in the case of using a network of bank branches.

Finance ministry and/or central bank, through corresponding branch offices

Usually the net of branch offices won't be very extensive, if existing at all. This would mean that the finance ministry/central bank would have to build up a branch network. This could improve the credibility of the public debt instruments. In addition, the government would have direct control over the selling process. However, the initial investment would be high. We guess that the costs of the initial investment and the operating costs would outweigh the advantages such as credibility and direct control (which can be pursued by other means).

Internet

Under certain premises this mean is certainly the most cost efficient alternative to sell retail public debt instruments. However, it may be very difficult to reach a broad range of households. In most emerging economies the diffusion of the internet is still very low. In addition, investors must possess a credit card or a current account where the money can be debited electronically. Even in Germany, where around 250 per 1,000 inhabitants do have access to the internet, this sales channel for retail bonds is still underdeveloped.

Usually the finance ministries resort to various channels of distribution, as these channels complement each other. E.g. in South Africa retail bonds can be ordered in post offices, banks, supermarkets and via internet.

Saving schemes

It may be efficient to offer saving schemes. E.g. it could be offered to enable the investor to buy every month a certain amount of a retail bond. This could occur through a bank account or through an account at the debt management agency (if existent). In Germany such saving schemes with government bonds are very usual. The saving schemes could also be connected with the payroll payments. This would mean that the employer buys every month a predetermined amount of retail bonds which are than transferred to the security accounts of the employees. This is done in the US.

4.2. Marketing

Marketing is of extraordinary importance in the phase of the introduction of the retail public debt program. During this period the government has to implement advertisement campaigns through TV, radio, news papers and internet with the target to popularize the new financial products. Having said this, the success of the marketing campaign depends predominantly on the choice of the right products. The instruments must be tailored to the needs of the private households, while remaining easy to understand. While a certain stock of advertisement is needed over the longer term, the bulk of marketing costs should be concentrated on the start of the campaign.

5. International experience

Looking at international experience there are plenty of countries which have set up a program of retail instruments in the past. For a detailed overview of retail instruments in EU countries, see Table A in the Appendix. Lessons are to be learned not only from mature financial markets like Germany and UK, but also from less developed like South Africa and Poland. We will concentrate here on South Africa and Germany.

5.1. South Africa

The Ministry of Finance set up a retail bond program in 2004 with the first retail bond issue coming to the market in May 2004.

According to the ministry the main objectives of the retail program were

- fostering saving: “create awareness amongst the general public of the importance to save”
- to offer retail investors more financial instruments to invest in
- to broaden the investor base

To influence the saving behaviour of private households seems to be a particular motivation, for on the corresponding web site there is given broad room to the explanation why private households in South Africa have a low saving culture.

5.1.1. Instruments

The retail bonds are non-marketable and are dubbed “retail savings bonds”. There are two main instruments on issue: Fixed rate bonds and inflation indexed bonds. Both are offered with three different maturities: 3, 5 and 10 years.

Common features of inflation linked and fixed rate retail savings bonds

- Minimum capital amount: 1,000 Rand (around 85 Euro) per purchase, with a maximum of 1,000,000 Rand (around 85,000 Euro) for an individual’s total portfolio.
- Eligibility**:** only a natural person who is either citizen or permanent resident of the Republic and is in possession of a valid South African identity number, and hold a bank account with a financial institutions in the Republic, is eligible to purchase any of the retail savings bonds series.
- Early withdrawal**:** the notional amount will be repaid to investors on the maturity date. However, an investor may withdraw a portion of or the entire notional amount before the maturity date, but only after 12 months from the settlement date, subject to the penalty being imposed. The penalty corresponds approximately to one coupon payment.
- Call option from the treasury: the national treasury reserves the right to allow early withdrawals prior to the expiry of twelve months from the settlement date, but only under extraordinary circumstances.
- No special tax treatment of interest payments received out of retail bonds.

Fixed Rate Retail Savings Bonds

- Pricing of the bond: The prevailing coupon for each of the maturities of the retail savings bonds is priced off the current government bond yield curve. In practice, retail bond yields are changed only when yields on government bonds change by more than 50 basis points (0.5%) within a month.
- Payment of coupon: the coupon due on each of the fixed rate retail savings bonds is paid into the designated bank account. However, investors have the option to have their entire coupon payments reinvested.
- Special coupon payment frequency for pensioners: pensioners of the age of 60 or above have the option to receive their coupon monthly.

Inflation Linked Retail Savings Bonds

- Description: the capital amount as well as the semi-annually coupon is adjusted to the consumer price inflation according to the CPI index.
- Pricing of the bond: the coupons for each maturity are derived from the government inflation linked bond yield curve.
- Payment of coupon: coupon payments are made to investors on the semi-annual payment dates
- Reinvestment: there is no option to reinvest any Coupon payments

5.1.2. Distribution and market share

Distribution

The transaction can be done through different points of sales:

- Any branch of the South African post office
- Any branch of certain supermarket chains (Pick ‘n Pay, Boxer or Score)
- RSA retail savings bond website (www.rsaretailbonds.gov.za)
- Directly at the National Treasury
- Telephonically

Market share

By the beginning of 2008 the market share of retail bonds was at merely 0.3% (some 2.5 bn Rand or EUR 200 m). While the set up of the retail program is relatively young (start in May 2004) the development seems to be somewhat disappointing. However, given the world wide banking crisis the program might gain some positive dynamics as people look for alternatives to bank deposits and stock investments.

5.1.3. Conclusion

The South African retail bond program is characterized by non-marketable easy-to-understand products. Given the high inflation figures in the past it seems appropriate to offer inflation indexed retail bonds. Citizens have many different possibilities to buy retail bonds. The possibility to buy retail bonds through various supermarket chains means that the distribution network is very broad. However, the precondition to hold a bank account may not be fulfilled by a big share of the population, excluding them from the purpose to give an incentive to increase savings. Likewise the minimum amount of 1,000 Rand (around EUR 85) required to make an investment does not seem to be appropriate for lower income groups. While the market share of retail bonds is still very low this does not mean that the retail bond program could not be a success in the future. Some modifications to the program, probably a more effective marketing campaign (we don’t have information about the marketing efforts done), and a changing financial environment (global banking crisis) might do the trick to increase public attendance to the program.

5.2. Germany

The German debt management agency introduced a retail bond in 1969. In 2008 the agency (Deutsche Finanzagentur) started a marketing campaign to increase the share of the retail investors in the public debt market from 2% to around 3 to 5%, which would correspond to some EUR 50 bn. While the agency does target retail investors since some 40 years, the recent campaign got a lot of attention due to the first retail product innovation during the last 30 years: July 2008 the agency launched a money market bond for retail investors attracting in less than one year some EUR 3.4 bn.

The main motivation of the recent effort to increase the share of retail investors with respect to public debt is the broadening of the funding basis. Interestingly the debt management agency is positioning itself also as a competitor to private banks, e.g. when advertising that a depot at the agency is without costs while private banks usually take fees.

5.2.1. Instruments

The range of products offered to private investors spans from non-marketable bonds with conditioned put option to marketable bonds which are traded also by institutional investors. In addition, the debt management agency gives retail investors (and institutional investors as well) the possibility to keep a securities account with the agency (limited to public securities) and to transact most of the public securities through this account. The purchase

and sale through the debt management agency is free of charge. Retail public debt instruments are not exempt from tax.

Non-marketable

Money market bond (Tagesanleihe): The money market bond can be bought only through the German debt management agency. The minimum amount invested is EUR 50. The maximum amount to be invested per day is EUR 250,000. Withdrawal is possible every working day with a maximum amount of EUR 1 m Euro per day. Not only retail investors but also institutional investors are allowed to invest into this product.

Federal treasury financing paper (Finanzierungsschätze): This short term paper exists for 1 and 2 year maturities. It's a discount paper without Coupon payments. In addition it is not possible do hand it back to the debt agency before maturity. The minimum amount to be invested is EUR 500 and the maximum is EUR 250,000 per day. With the exception of banks everybody is allowed to buy this instrument.

Long term federal savings note (Bundesschatzbriefe): The main characteristic of this bond is that each year the coupon payment does increase in a predetermined way (step up bond). Only natural persons and non-profit organisations are allowed to buy these instruments. The minimum amount to be invested is EUR 50 with no upper limit. After 12 months the investor has the possibility to withdraw the money before maturity with a maximum amount of EUR 5,000 in the period of 30 days. The maturity of the instrument is 6 years (Type A) and 7 years (Type B). The Type A retail bond makes Coupon payments every year while the Type B instrument reinvests the coupon payments.

Marketable

Private investors are allowed to buy the whole range of public debt instruments. However, not all of these instruments can be purchased or sold through the securities account at the debt agency.

Five year federal notes: Out of the marketable securities the five year notes are the most in demand by retail investors. This instrument is a classical fixed rate bond (yearly coupon payments, repayment of the nominal amount at maturity) which can be traded on the exchange market. This means that the investor faces a price risk. The minimum to be invested is EUR 110 assuming that the bond is bought through the debt management agency. Otherwise the usual minimum amount is EUR 1,000.

Inflation-indexed bonds: Currently there are two inflation indexed bonds outstanding, which have original maturities of 5 and 10 years. These bonds cannot be purchased through the debt management agency. However, retail investors can buy them through banks security accounts and transfer them to their security account at the agency without facing any costs.

Other instruments available for retail investors: Apart from the above mentioned securities others instruments that can be purchased by retail investors are bonds with original maturities of 10 to 30 years (Bundesanleihen), 2 year bonds (Bundesschatzanweisungen), Treasury Bills (Schatzanweisungen), and US-Dollar bonds with an original maturity of 5 years. The usual minimum amount to be invested is EUR 1,000 (and USD 1,000 in the case of the US-Dollar bond) with no upper limit. The purchase of these bonds is not possible through the debt management agency but only through financial institutions. With the exception of the US-Dollar bond all above mentioned bonds can be deposited at the securities account of the debt management agency. The transfer is free of charge.

Financial instrument planned: The debt agency plans to offer a standardized investment fund which comprises public debt securities with different maturities. In addition, an inflation-indexed retail bond might be on offer soon.

5.2.2. Distribution and Market share

Distribution

While the money market bond can only be purchased through the public debt management agency, the bonds with retail character are offered by the debt management agency and by most financial institutions (commercial banks, saving banks, and cooperative banks). The other bonds which usually are tailored for institutional investors, but are available for retail investors as well, can be bought only through financial institutions. With respect to bonds that can be purchased directly through the debt management agency investors can order these securities via postal mail, telephone or internet. If these securities are transacted through financial institutions, the channels through which the transaction is possible usually is telephone, internet or directly at the bank's branch.

An important contribution to the success of the retail products is that investors can aquire them via a savings scheme on a regular basis.

Market share

Measuring only the market share of the retail bonds (Bundesschatzbriefe and Finanzierungs-schätze) as a percentage of total federal debt outstanding retail bonds account for a share of 1.1%. The money market bond, which can also be acquired by institutional investors amounts to 0.34% of total debt. Given that wholesale bonds are also in the portfolios of retail investors the public debt share retail investors hold is at about 2% (January 2009). The debt agency aims for reaching a share of 3 to 5% by 2013. Currently the agency administers 450,000 retail accounts and wants to double this number by 2013.

5.2.3. Conclusion

The recent initiative of the public debt agency to gain more retail investors proved to be a success. The rise in the number of accounts which were gained over the last few months is owed to the combination of a successful marketing campaign, the right products on offer and above all the banking crisis. As so many banks face difficulties to survive, stock markets are heading south and corporates are defaulting, people desperately search for a save haven. The money market bond is the most successful instrument in this respect as it gives the investors the highest possible flexibility without any default risk. However, as the retail bonds step up bonds can be acquired via a saving scheme these instruments face also a solid demand.

The federal debt agency is adopting quiet quickly to the needs of retail investors in Germany. These needs are of different degrees of sophistication. While the possibility to have a securities account at the debt agency has some important advantages for retail investors (lower costs, more security), the complexity of the products on offer (e.g. the step up bonds) may be somewhat too high for markets where investors are not so familiar with financial products. The easiest to understand product is certainly the money market bond. While this instrument does not represent a reliable funding instrument, it might be at least an excellent marketing instrument to attract retail investors.

5.3. Pricing of retail bonds

Generally governments take marketable government bonds as benchmark for pricing retail bonds. There is no clear cut rule with respect to the relation between yields for retail bonds and yields for wholesale bonds. In the US and UK interest rates paid to retail investors seem to be somewhat lower than the payments to wholesale investors. In Germany we can not observe an important difference. In South Africa it seems that wholesale investors receive even lower interest rates than retail investors.

Table 2

Current pricing of retail debt programmes

Retail government bonds		Wholesale government bonds	
South Africa (Moody's: Baa1 / S&P: BBB+ / Fitch: BBB+)			
2-year fixed rate	9.00	2-year fixed rate*	7.16*
3-year fixed rate	9.25		
5-year fixed rate	9.75	5-year fixed rate**	8.45**
3-year inflation linked	2.25 (+inflation)		
5-year inflation linked	2.50 (+inflation)		
10-year inflation linked	2.75 (+inflation)		
* Maturity August 2010			
** Maturity September 2015			
Germany (Moody's: Aaa / S&P: AAA / Fitch: AAA)			
Money market bond (Tagesanleihe)	0.28		
5-year fixed rate (marketable, small denomination)	2.51	5-year fixed rate	2.47
Step up bonds 6 years (if held until maturity)	2.68	6-year fixed rate	2.81
Step up bonds 7 years (if held until maturity)	2.99	7-year fixed rate	3.05
United Kingdom (Moody's: Aaa / S&P: AAA / Fitch: AAA)			
Easy access savings account	0.3 – 0.7		
2-years fixed interest savings certificates (if held until maturity)	0.95	2-years fixed rate	1.16
5-years fixed interest savings certificates (if held until maturity)	1.90	5-years fixed rate	2.79
USA (Moody's: Aaa / S&P: AAA / Fitch: AAA)			
EE bonds (30 years maturity, redeemable after 12 months, redeemable without penalty after 5 years) (these bonds were substituted by zero coupon bonds in May 2005 with a different pricing structure)	90% of 6-month-averages of 5-year treasury securities market yields	30-year fixed rate	-

Source: Bloomberg, Websites of National Treasury South Africa, Deutsche Finanzagentur, National savings and Investments (UK), US Treasury, data as of June 26th

Given that in UK investors have a put option and returns are tax free, it does no surprise, that yields received by the investors are somewhat lower than the payments on comparable wholesale instruments. However, although in the case of South African retail bonds savers have a put option too (but no tax exemption) the yields retail investors receive are higher than for wholesale investors. This could be interpreted as a measure to subsidise retail bonds.

6. Current plans in Ukraine

Many above mentioned general arguments in favour of a retail public debt market apply also to Ukraine. Both, the savers and the government would be able to gain from it:

The advantages of a retail public debt market for Ukrainian savers

Due to the current financial and economic crisis many people do not have faith in the banking sector and hoard a lot of cash money under the mattress. This is certainly not an

optimal situation. For once there is the danger of theft. In addition people loose money because cash does not bear any interest. It seems clear that people would like to have an alternative where to put the money without running the risk of loosing it. Apart from that the saving instruments which are offered by banks do not fit to the needs of savers in terms of e.g. flexibility and pre-cancellation. As banks are apparently not able to provide for a secure alternative at the moment, it would make sense even in the short term to enable a public entity (like the finance ministry or the central bank) to offer securities accounts for retail investors, through which different public debt instruments can be bought.

The advantages of a retail public debt market for the Ukrainian government

Given that the Ukrainian government faces a difficult funding situation all means that would enable Ukraine to get through this crisis should be taken into account. One important mean in this respect could be certainly the development of a retail public debt market. Given the need of Ukrainian people to find alternatives for their saving, and assuming that the right products are offered (see below) such a project could prove to be successful. Having said this, it remains a difficult task to gain a significant number or retail investor to alleviate the funding problems of the Ukraine. However, there are above all some important long term arguments in favour of a retail public debt market. It could be a way to reduce the dependency from foreign investors. Hence the funding basis could be broadened and stabilized. In addition, the structure of Ukrainian debt could be changed, shifting away from foreign currency debt to hryvnia denominated debt, which would increase the flexibility of handling financial crises very much.

Although currently retail government bonds in other countries do not play a major role in most economies, they contributed to a significant amount to the funding needs of some countries in the past. The financial crisis lays probably the seeds for a revival of the attractiveness of retail public debt instruments. It seems to be an adequate moment to start this kind of project. The German experience supports this view.

Recent measures by the Ukrainian government

The Ukrainian government has recently taken steps to establish a retail bond programme in the country. The legal basis for this decision is the resolution of the Cabinet of Ministers of Ukraine from 14.04.2009[1]. The resolution instructs the Ministry of Finance to issue domestic retail treasury bonds in hryvnia with the following main features:

- Natural persons are entitled to purchase the bonds, which are in the form of bearer bonds in documentary form
- Principal of UAH 500
- A coupon of UAH 20 is paid every three months, i.e. UAH 80 per year. This corresponds to an interest rate of 16% p.a.
- Maturity is 12 months
- Each issue will total a volume of UAH 200 m, a new issue is placed after the previous issue is sold out

[1] See Resolution 362 from 14.04.2009 "On issue of treasury bills" (as amended by CMU Resolution 470 from 13.05.2009).

The distribution of the bonds will be done through the branches of OAO Oshchadbank, which shall be the general agent for issuance, transport, collection, circulation, repayment and liquidation of retail bonds. For these services, it receives the following fees:

- For placing, collecting cash payments, circulation services, repayment and liquidation of the bonds, Oshchadbank should receive 1% of notional value of sold bonds from the government
- For transportation of T-bills certificates – 0.2% of notional value of bonds to be sold from the government.

7. Policy recommendations for Ukraine

The launching of retail bonds should be seen as a long-term project. In particular, retail bonds should not be seen as a decisive instrument to combat the fiscal consequences of the current economic and financial crisis. Consequently, the goal in the short-term should be to establish and to propagate the instrument. In this respect, it is important to clearly separate this new product, which is sold on a strictly voluntary basis, from past (i.e. Soviet-time) schemes of forced subscription, which may still be in the minds of parts of the (older) population. A clear and unique branding strategy is a necessary step to disconnect these new products from past ones. The population should get acquainted with the instrument and have positive experiences with it. With the time, this instrument will certainly gain in quantitative importance, but its fiscal relevance should not be pushed too aggressively in the coming months. In short: If the new bonds contribute to ease the fiscal situation, this is fine. But if they do not contribute much, this should not be seen as a failure.

7.1. Short-term recommendations

The central objective in the short-term should be the successful introduction of retail bonds. For this to happen, the instruments must be attractive for the population and very simple to grasp. While there are some arguments in favour of indexation of principal and/or interest payments, we are convinced that at least in the initial stage the bonds should not be linked to any variable such as CPI, exchange rate, gold and/or benchmark interest rates. First, it is of paramount importance to keep the bonds as simple as possible. Second, the indexation of bonds can in principle be misused by the government in its position as debtor. Practically all official variables or indices are calculated by the state and thus a conflict of interest might arise when setting the final value of the variable in question. For example, if a bond is linked to the exchange rate UAH/USD, which value of the exchange rate is the appropriate one: The interbank market rate, the official rate by the NBU or the average rate at kiosks? The possibility of manipulation of the underlying variable by the government could deter many potential households from buying indexed bonds.

Recommendation 1: We strong favour the "plain vanilla" approach chosen by the government. For the time being, any link of capital and/or interest payments to a variable/index would decrease demand for the new instrument and could jeopardize the whole project.

A key question regarding the specific features of retail bonds is the issuance currency. There is a strong incentive for introducing retail bonds in foreign currency, since many households in Ukraine do hold their savings in foreign currency. But possible advantages of such a move should be carefully compared to the negative implications of such a policy. As the current crisis demonstrates, the dollarisation of the country is a central weakness of the financial system, which has clearly augmented the size of the current crisis. Consequently, we strongly suggest not introducing bonds in foreign currency at any time. A denomination in

foreign currency would create currency risks and foster dollarisation in the country, two clearly negative features.

Recommendation 2: Retail bonds (and public bonds in general) should be denominated in national currency, as foreseen in the government resolution. In general, the authorities should avoid measures which foster dollarisation in the country.

Furthermore, in order to make the bonds attractive to investors, they should carry a decent interest rate. In particular, the interest rate should be higher than the rate of inflation[2].

Recommendation 3: The interest rate should at least cover the current rate of inflation of roughly 15%. Given the current disinflation tendencies, the interest rate of 16% foreseen in the resolution has to be considered as a highly suitable one.

At the same time, the introduction phase should be used to gain information about the preferences of the population regarding retail bonds. Of course one can guess about such preferences, but there is no alternative to concrete experience when it comes to assessing the preferences of the demand side. In particular, the government should try to gain information about the preferences of the population regarding maturity. For this purpose, we suggest to introduce two instruments at the same time: one with a maturity of 12 months (as foreseen) and another with only 6 months. While the question of a possible roll-over arises immediately when considering shorter maturities, we think this issue should not be overstated. Retail bonds can be characterised – as opposed to wholesale bonds – as having a relatively stable and high rate of roll-over, e.g. are no so much subject to sudden shifts in investor perception. This can be traced back to the fact that both types of bonds have different types of investors – the population versus (often foreign) institutional investors. However, in order to facilitate roll-over of short-term retail bonds further, the selling agents should be able to offer upon maturity immediately a new bond to the retail client.

Recommendation 4: In addition to the 12-month bonds, the government should offer 6-month bonds with a lower interest rate. In such a way, the government will learn about the preferences of the demand side regarding maturity. Furthermore, to facilitate roll-over of these shorter term instruments –which may be a concern for the Ministry of Finance – the selling agent should be at all times able to offer their clients a new bond in exchange for an maturing one.

The importance of this recommendation can be illustrated with a simple hypothetical scenario. After the introduction of the 12-month bonds as the sole instrument, the government might have to realise that the demand for such bonds is weak. But how to interpret this empirical result? Does it mean that the population does not trust the government and that the project of retail bonds does not make any sense? Or does it mean that in principle people were interested, but not ready to invest their money for a relatively long period of 12 month? If two instruments are introduced simultaneously, then it will be much easer to answer these or similar questions. Besides, having two instruments will certainly not be confusing for the population; the system remains simple.

7.2. Long-term recommendations

The marketing and distribution of the bonds through Oshchadbank is certainly the right decision in the short term. But in the long-term, the system needs competition between distributors. Consequently, further distributors should be secured for the long-term success

[2] In economic terms, a positive real interest rate is in our view a necessary feature.

of the instrument. The new directive on the establishment of a primary dealer system in Ukraine[3] provides an excellent chance to broaden the list of distributors.

Recommendation 5: In order to increase competition at the distribution level, the future primary dealers in government bonds should also be allowed to distribute and sell retail bonds. The conditions for the primary dealers should be the same as for Oshchadbank.

At the same time, the government should put much emphasis on decreasing the cost of issuing retail bonds, clearly the weakest point of these instruments from a fiscal point of view. One main possibility to decrease costs is the introducing "book-entry" bonds ("non-documentary" bonds). Thus, once the paper bonds are well established among the population, the government should add a further instrument, the "book-entry" bond.

Recommendation 6: In order to reduce the costs of issuing retail bonds, we propose to offer "book-entry" bonds to the population, since the costs of these bonds from a fiscal point of view are much lower than bearer bonds in documentary form.

Similarly, in the long run, the distribution efforts over the "Internet channel" should be strengthened, as this can be considered a very cost efficient solution. While the current number of internet users in the country can only be estimated[4] and is low in international comparison, a future growth in this number can be predicted with certainty. These internet users are usually quite young, and probably have less old, Soviet-time prejudices about government bonds. Furthermore, the distribution of the necessary electronic payment/debit cards seems also not a problem: 37.2 m different cards are issued.

Recommendation 7: The distribution efforts over the internet should be increased over time, as a number of benefits are associated with such a strategy.

Finally, the extension of the maturities of the bonds offered must be a key objective for policymakers in the long term. In case the instruments are a success among local investors, the government should introduce in parallel bonds with longer maturities, e.g. 24 months. A further incentive for the population to purchase such bonds could be the introduction of a coupon payment that increases in the second year (as compared to the first year) in a predetermined way (i.e. a step up bond similar to Germany's long term federal savings note (Bundeschatzbriefe)).

Recommendation 8: The extension of maturities of the bonds on offer is an important long-term objective. To increase interest among the population, the feature of a step up bonds (where the coupons increase in a predetermined way) should be seriously considered.

[3] See Resolution 362 from 14.04.2009 "On issue of treasury bills" (as amended by CMU Resolution 470 from 13.05.2009).

[4] While the CIA fact book lists 10 m internet *users* in 2007, the latest official data (Q1 2009) report 2 million internet *subscriptions*. However, these two sources of information do not necessarily contradict each other.

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Appendix

Table A

Retail instruments in EU countries (2000)

	existence	specific	type	issuance	% of total debt
AUSTRIA	NO				
BELGIUM	YES	YES	Plain vanilla or restructured Maturity 3-8 years	4 times a year ; placement using a consortium of financial institutions	2%
DENMARK	NO				
FINLAND	YES	YES	Fixed rate instruments, maturity 2-5 years	Selling by banks and directly from the State Treasury	2,9 %
FRANCE	YES	NO	Sale of a limited part of the OAT 10 Y and the OATi 10Y	Placement using a consortium of financial institutions	2%
GERMANY	YES	YES[7]	Federal savings bonds and Federal Treasury financing paper		7,7%
GREECE	YES	YES	Saving certificates	Public subscription	2%
IRELAND	YES	YES	Saving bonds Maturity of 3 to 5.5 years Fixed rate	sold through the Post Office	13.3
ITALY	YES	YES	Postal saving bonds (not marketable)	sold through the Post Office	8,7 [8]
LUXEMBOURG	NO				
NETHERLANDS	NO				
PORTUGAL	YES	YES	Saving certificates	Sold at IGCP or at any post office	19.8%
SPAIN	YES	NO		Placement using a consortium of financial institutions or directly to the treasury (Internet under discussion)	
SWEDEN	YES	YES	Mainly fixed rate issues Maturity 3-15 years	Selling by internet, telephone, through mail order, or using a consortium of financial institutions	1%
UNITED KINGDOM	YES	YES	54 % floating rate, 31% fixed rate, 16% index-linked	Non Marketable government liabilities issued by National Savings	17.5%

Source: European Commission (2000)

Notes: [7]*Five-year special bonds are also sold to the retail sector for a period of six months after which they are offered to the auction group.*

[8]*This percentage is referred to the total of State Sector debt, which includes not only Treasury marketable debts, but all liabilities of State Sector (corresponding, more or less, to Central Government), cleaned by liquid assets. Previous percentages*

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