August 31, 2015

The rise of Russian pension funds

Equity Research

Russian pension funds: $200 bn industry by 2020

Pension fund assets can triple by 2020

Having cleaned up the pension system in 2013-14, the Russian government now seems ready to allow resumption of contributions to private pension funds. The impact will be large: we forecast Russian pension fund assets will increase to c.US$200 bn by 2020 from $64 bn today. The creation of this sticky, long-term domestic investor base is likely to produce significant benefits for Russian capital markets, particularly for stocks.

Allocation to equities will likely increase

Russian pension funds today allocate over 80% of their assets to fixed income, including bank deposits. Globally, however, as pension funds mature and their assets grow, the share of equities tends to go up. In Russia additional tailwinds should come from lower interest rates and regulation. We estimate Russian funds can hold up to $60 bn of local equities by 2020 (55% of total estimated free float), compared with $6 bn now and $32 bn owned by foreign investors.

Russian capital markets can change

Russian capital markets can be profoundly changed by the rise of pension funds. In fixed income, pension funds will likely create demand for long-term, secure, inflation-linked products. Russian real interest rates– which are now at a substantial premium to the EM median – should decline. In equity markets, pension funds' investments can decrease volatility and improve valuations, as well as increase dividend payout ratios.

Key beneficiaries: MOEX, MGNT, ALRS

All Russian financial markets should benefit from the rise of Russian pension funds. Within our coverage, we see Moscow Exchange as an important beneficiary, as it provides the primary trading infrastructure. We like Magnit's local shares, which should narrow their discount to GDRs as local pension funds invest onshore. Finally, we highlight Alrosa, where solid FCF gives it room to respond to greater appetite for dividend yield.

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Prices in this note are as of the close on August 26, 2015, unless otherwise noted.

PM summary

Russian capital markets have always needed a consistent long-term, sticky domestic investor base. This need for funding was exacerbated over the last couple of years, as external financial markets became largely closed. This environment recently led the Russian government to state its intention to allow resumption of contributions to the private pension system, which started in 2004, but were frozen in 2013. With this report we assess:

- **The potential size of the Russian private pension fund system,**
- **Asset allocation strategies of pension funds, and,**
- **Implications for equity- and fixed-income markets.**

Change in regulation to revive growth in Russian pension system

The Russian pension industry was born in 2002, when the government required 6% of every employee's salary to be contributed to state or private pension funds. Since then, total pension fund assets under management (AuM) reached $64 bn, and according to official statistics the private pension funds client base reached 28 mn people vs. 52 mn in state pension funds, while the asset split is $33 bn in private funds and $31 bn in state.

The Russian government froze transfers to private pension funds in 2013-14 to strengthen the system. The key concern was that without better regulation pension funds could make investments that are too risky (e.g. real estate, related party projects), and that the government would ultimately be accountable if some of these pension funds were to go bankrupt.

The overhaul included: 1) a change in the legal status of pension funds to for-profit, 2) set-up of a special fund to guarantee savings in the case of bankruptcy, and 3) merging the previous regulator (Federal Service for Financial Markets) with the Central Bank of Russia, and shifting oversight to the central bank. In the spring of 2015, Russian government officials supported the resumption of contributions to private pension funds (Vedomosti April 24, 2015), citing the need to create a long-term domestic capital pool; first funds were disbursed in May. As a result of the changes, we forecast Russian pension fund assets to increase c.$120 bn by 2020 to nearly US$200 bn, on a combination of inflows and investment returns.

Equity allocations could increase to US$60 bn by 2020

Russian pension funds currently allocate over 80% of their assets into fixed income, including bank deposits. We believe this will change in the mid-term for the following reasons:

- First, such high allocation is typical for nascent pension systems. In South Africa the allocation to fixed income was 60%-70% in the 1980s, but fell to just 38% in 2014. We find that globally as pension funds' assets grow, the share of non-fixed income assets tends to increase as funds diversify into equities.
- Second, we believe that changes in the remuneration scheme for private pension funds (e.g. lengthening of the requirements for profitability to 5-year horizon from 1 year) will incentivize pension funds to take more risk.
- Finally, lower interest rates, as expected by our economists, will likely push pension funds to invest more in equity.

We believe an increase in asset allocation towards equities would further increase the importance of pension funds in domestic markets: we calculate that their current equity AuM of $6 bn can increase to $40-60 bn by 2020 (35%-55% of the estimated total free float), compared with just $32 bn owned by foreign investors at the moment.

Higher valuation, lower volatility for equities and lower rates for fixed income are key implications

We believe that both fixed income and equity markets will benefit from potential changes in the Russian pension system (see Exhibit 1).

As a result of these changes, we highlight Moscow Exchange, which stands to benefit from growth in volumes, Magnit, which currently has the highest discount of its local shares to GDRs, and Alrosa, which has high dividend payout potential that will likely attract pension investors.

Exhibit 1: Development of the Russian pension system will significantly affect Russian capital markets
Potential implications to financial markets from changes to the pension system

Potential implications to financial markets from expected changes to the pension system			
Equities	**Lower market volatility**	**Enhanced dividend discipline**	**Higher valuations**
	Pension funds create sticky local investor base with lower turnover of holdings, which should decrease volatility and support stock multiples	Pension funds' investments are generally value-oriented and encourage sound dividend policies	Additional flows would positively affect stock valuation, market volumes and IPO activity
Fixed income	**Lower real rates**	**Demand for new products**	
	Pension funds will drive the demand for debt, lowering level of real rates	As pension funds' asset base grows they will be looking for new products with higher yields	

Source: Goldman Sachs Global Investment Research.

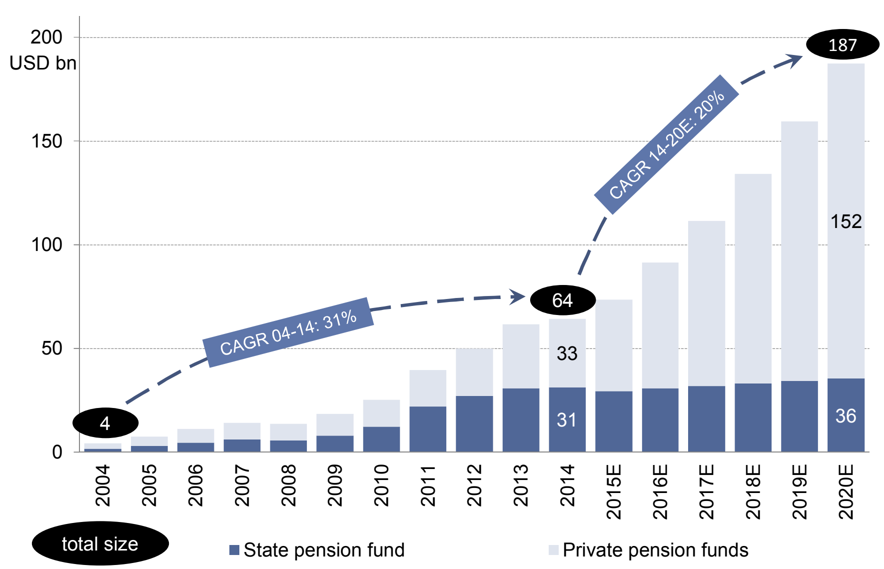
Russian pension fund AuM may reach c.$200 bn

The modern Russian pension system, formed more than a decade ago, has grown into a substantial provider of capital for local fixed income and equity markets. With 80 mn participants (65% in state funds and 35% in private funds as of 2014) it has amassed over $60 bn of assets, and keeps growing. Indeed, we estimate the pool of capital represented by Russian pension funds can increase to c.$200 bn in the next five years, driven by both inflows and investment returns.

Inflows into the Russian pension system are funded by employers, which by law contribute 6% of employee salaries to the Pension Fund of Russia (PFR), while voluntary contributions are funded either by employers or employees on their own initiative. Mandatory contributions are then either left with PFR to manage or are transferred to private pension funds, depending on the choice of the employee, while voluntary contributions always go to private funds. We illustrate the design of the pension system in more detail in Appendix 2 (Exhibits 30-31).

In our forecasts of inflows we assume pension funds will continue getting 6% of the gross salary pool. We also assume that private pension funds will continue to increase their market share by c.0.5 mn people a year (in 2014 2.4 mn were added). We forecast CPI+150 bp per year return for private pension funds, in line with their stated targets and recent history. For the state pension fund, we assume a more conservative CPI+50 bp.

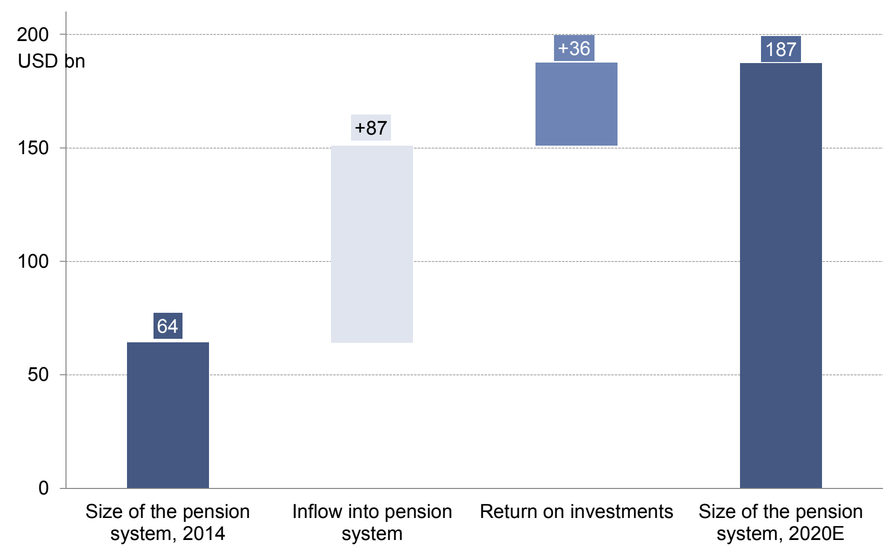
Exhibit 2: Pension fund assets under management (AuM) expected to grow at a 20% CAGR in the next 5 years
Russian pension fund AuM forecasts



Scenario under the assumption that inflow of mandatory pension savings into private system will continue

Source: CBR, Pension Fund of Russia, Goldman Sachs Global Investment Research.

Exhibit 3: We anticipate asset increases of c.$120 bn by 2020, from inflows and investment returns
Breakdown of inflows

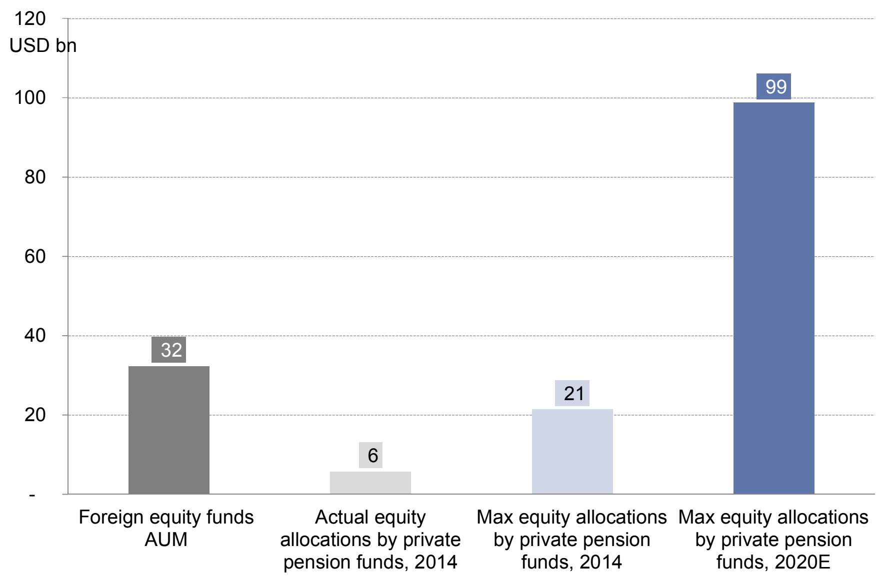


Source: CBR, Pension Fund of Russia, Goldman Sachs Global Investment Research.

In equity markets Russian pension funds can become 2x bigger than foreign funds

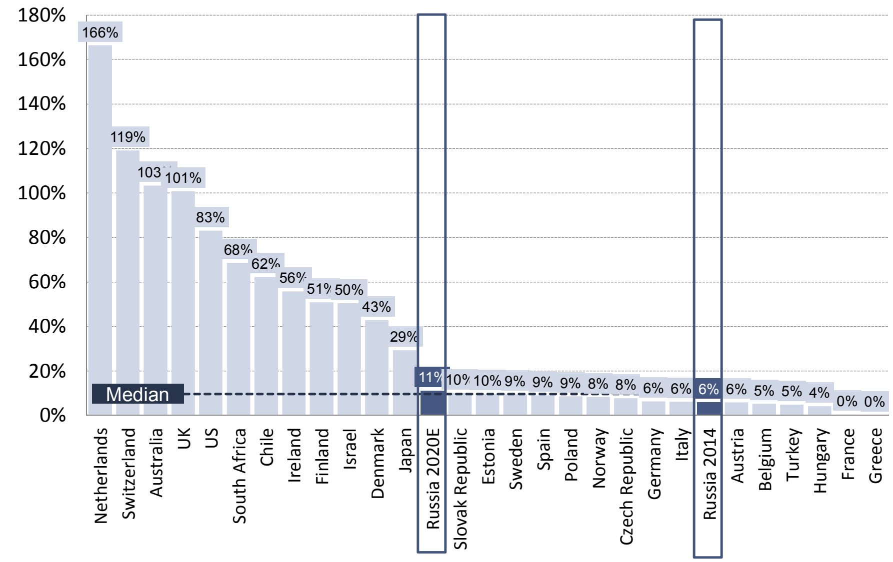
We forecast Russian pension funds to grow at a CAGR of c.20% in the next 5 years, however, penetration of their assets would continue to remain low relative to more developed markets – around c.11% of GDP by 2020. Due to record low allocations, Russian pensions now own just $6 bn of equities, substantially lower than foreign funds at $32 bn. However, on our forecasted asset growth and likely increases in equity allocations, Russian pension funds may reach $40-60 bn, overtaking foreign investment in the next few years.

Exhibit 4: Russian pension funds hold record low amount of equities, yet in the next 5 years domestic investors could overtake foreigners
Foreign and Russian fund holdings in equities



Source: CBR, EPFR, Goldman Sachs Global Investment Research.

Exhibit 5: Even at a nearly 20% 2015-20 CAGR, the pension market would remain underpenetrated relative to developed markets
Pension system assets to GDP across countries



Source: OECD, Goldman Sachs Global Investment Research.

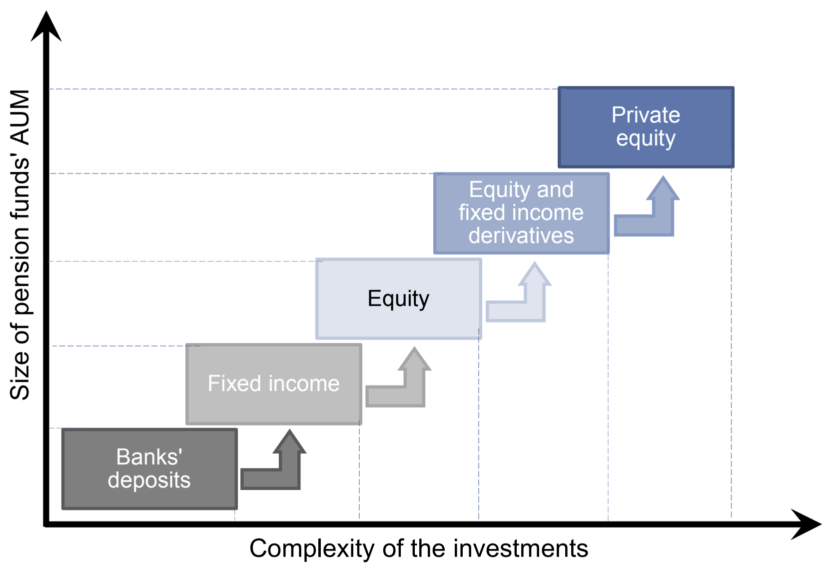
Asset mix will likely shift towards equities

Russian private pension funds currently allocate over 80% of their assets to bank deposits and fixed-income instruments. We see three reasons why equity allocations in Russian pension funds will increase: growth in size, changes in regulation and lower inflation.

1) Increase in scale to increase complexity

We find that pension funds tend to change their asset allocations as they get scale, becoming more sophisticated and increasing allocations to equities, derivatives and private equity (see Exhibits 6 and 7). Thus current allocations of c.80% are fairly typical for a nascent pension system: for example, in South Africa fixed income and bank deposit allocation was as high as 65%-70% in the late 1980s, but now constitutes less than 40% of the portfolio. We expect to see a similar trend in Russia – as pension fund assets grow in the next 5 years, asset class diversification is likely.

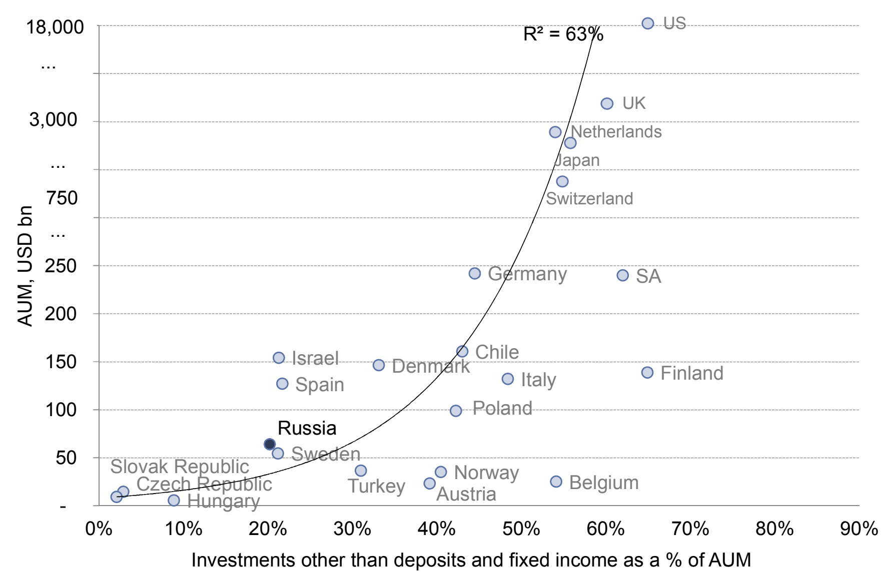
Exhibit 6: Complexity of investments grows with size…



Source: Goldman Sachs Global Investment Research.

Exhibit 7: …which is supported by empirical data

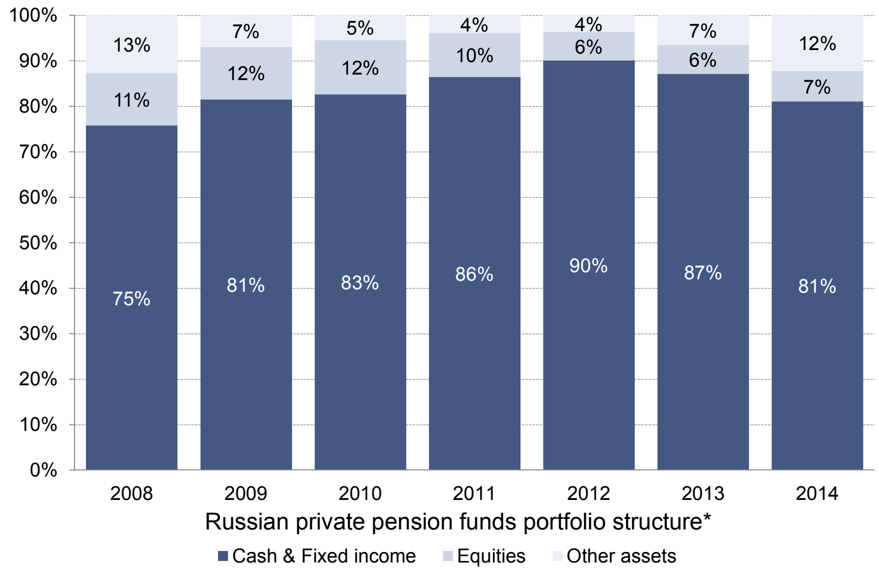
Pension fund total AuM vs. investments in other plain vanilla products by country



For Poland we used AuM and equity allocations pre-2013 reform, after which AuM of funds halved and equity allocations increased to over 80% of the portfolio

Source: OECD, Goldman Sachs Global Investment Research.

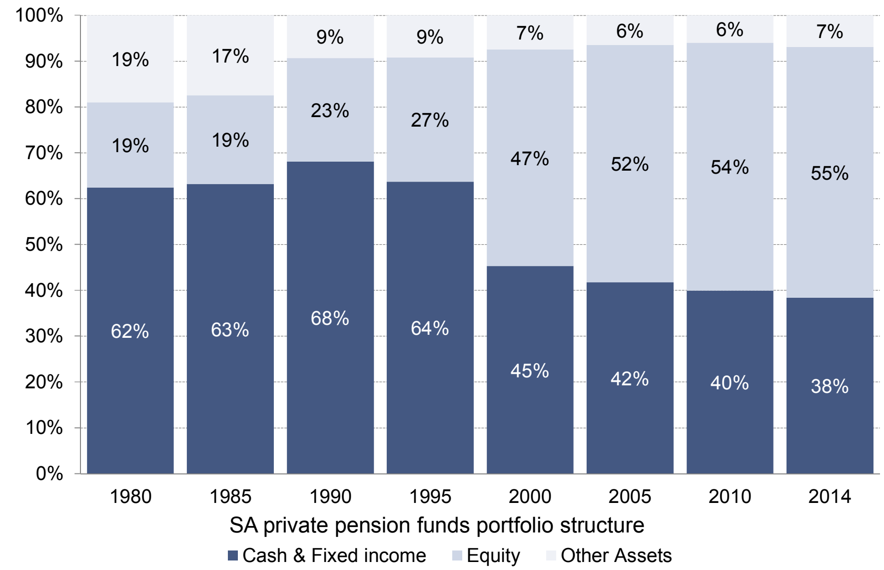
Exhibit 8: We believe Russian pension allocations will change over time
Russian private pension funds' portfolio structure*



**based on the data on NPFs managing savings*

Source: CBR.

Exhibit 9: South Africa is a good example: c.20% of funds were allocated to equities in the 1980s which almost tripled by 2014
South African pension fund portfolio structure*



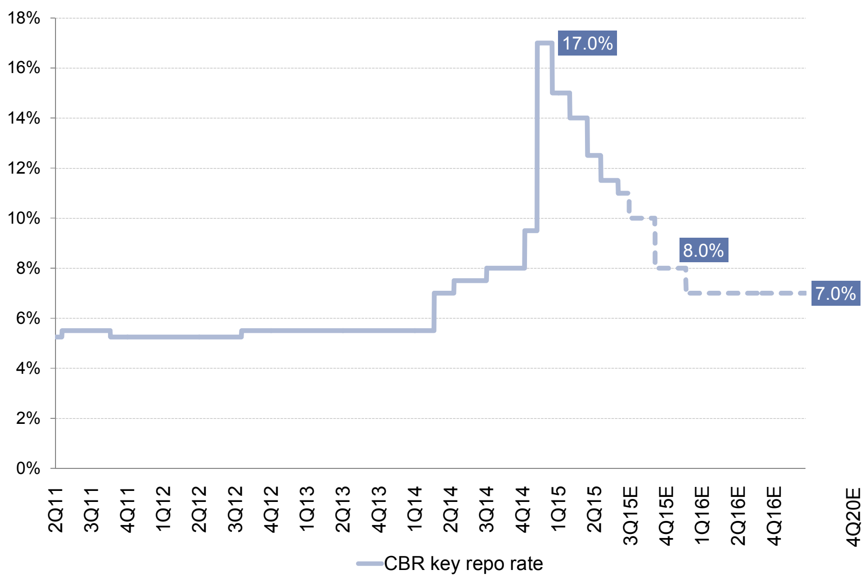
**1980 & 1985 data based on the data for private funds only*

Source: FASB.

2) Change in regulation to allow higher risk

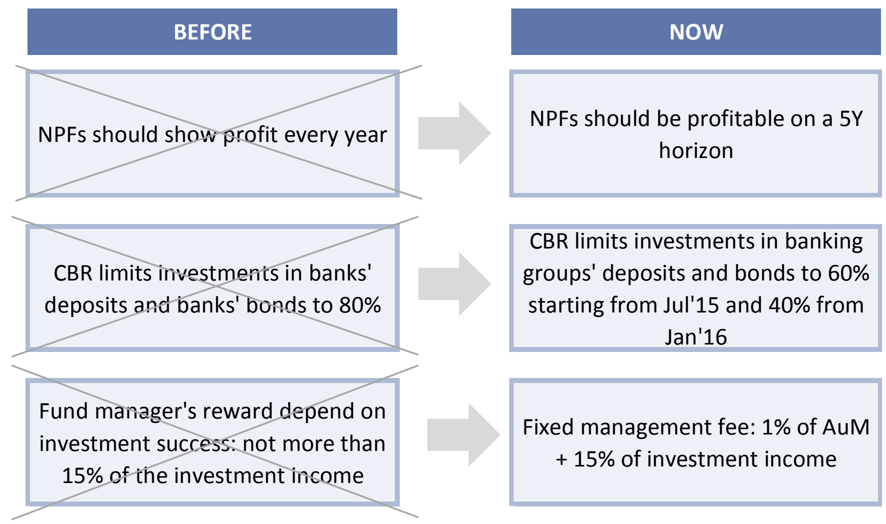
In 2015-16, the CBR is expected to introduce a number of measures aimed at increasing the risk appetite and investment horizon of pension funds. In particular, funds will be required to be profitable every five years (previously every year), and their remuneration will be changed from a success fee to a combination of management and success fees. In addition, the CBR continues to reduce the maximum limit on investing in banks' bonds and deposits: It is currently 60%, but is expected to fall to 40% from 2016.

Exhibit 10: Decrease in the level of repo rates…
CBR key rate (1w repo) dynamics



Source: CBR, Goldman Sachs Global Investment Research.

Exhibit 11: …and regulatory changes are additional supportive factors for the growth of equity holdings
Change in regulation for non-state pension funds (NPFs)



Source: CBR, Goldman Sachs Global Investment Research.

3) Decline in interest rates

Bank deposits and fixed income are particularly attractive to pension funds when inflation is high and GDP growth is low, like in 2014-15. This, however, is expected to change: our economists forecast the Central Bank's key 1-week repo rate to decline to 7% in 2016 (from 11.0% now), and GDP growth in 2016-17 to return to +1.4%/2.6% compared with -2.7% this year, making equities a more attractive investment.

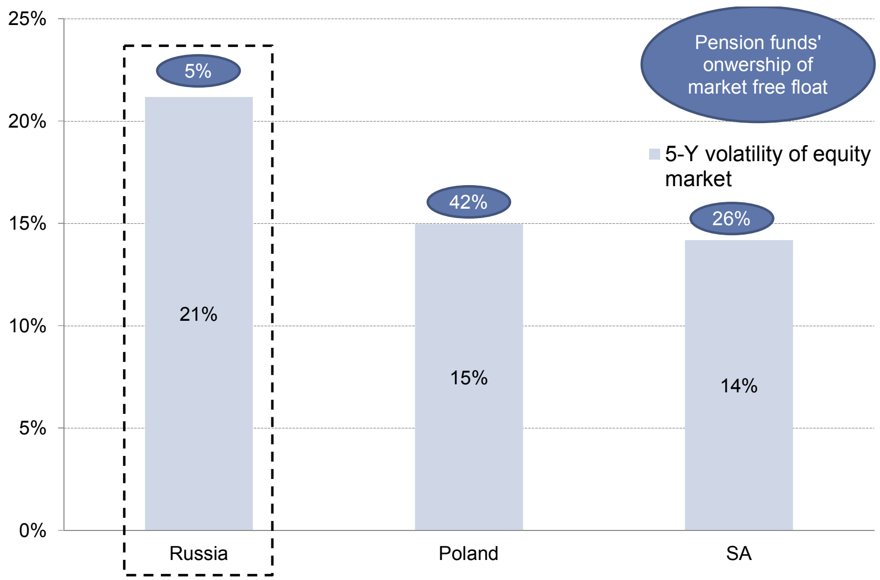
Pension funds can change Russian equity and debt markets

We believe the influx of money from pension funds can profoundly change Russian capital markets. In equities, we believe volatility can decrease, dividend discipline can improve, and valuations rise. In fixed income, in our view, the trend will be toward lower real rates and higher demand for long-term, secure, inflation-linked instruments.

Equities: Lower volatility, better dividends, higher valuations

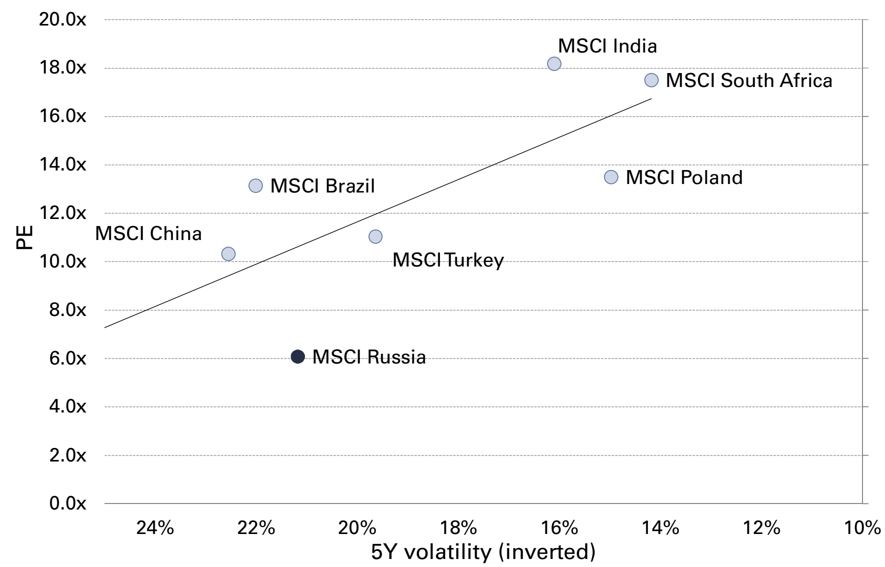
Pension funds tend to become long-term holders of stocks, thus stabilizing equity markets and reducing volatility. They are also key participants in deal flows, accumulating substantial stakes in companies at IPO. Poland is a good example where pension funds' average holding period is twice as high as for any other investors. Further reduced volatility in both Poland and South Africa (see Exhibits 12-13) is positively correlated with valuations. The same reduction should contribute positively to Russian P/E multiples, which are now the lowest in global emerging markets.

Exhibit 12: Long-term domestic holders will likely reduce market volatility…
Pension funds' ownership of free-float vs. volatility of local markets – volatility measured using 5-year average standard deviation of returns



Source: World Federation of Exchanges, MOEX, WSE, JSE, Haver analytics, FASB, CBR, PFR.

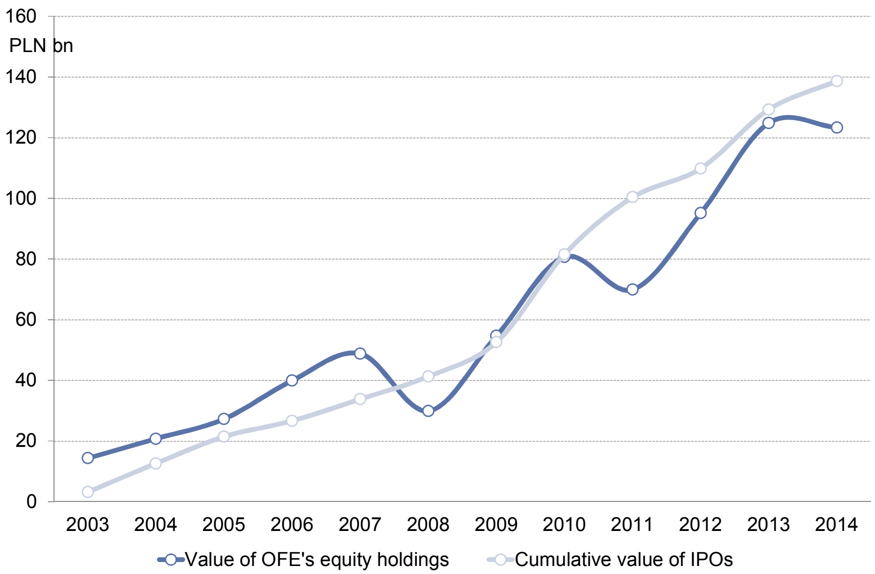
Exhibit 13: …which is usually associated with better market multiples
Market volatility vs. P/E



Source: Bloomberg.

We also believe pension funds will tend to pursue higher dividends and may accumulate substantial minority stakes of companies to have influence on dividend discipline. Indeed, dividend yields in Poland and South Africa, where pension funds play an important role, are higher than in Russia.

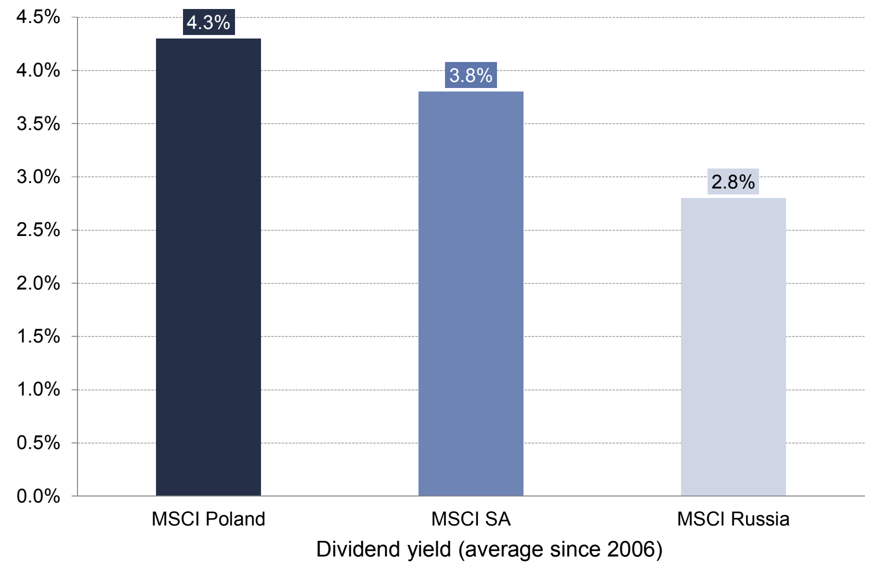
Exhibit 14: In Poland growth in pension fund AuM was one of the drivers behind IPO activity
Private pension fund equity holdings vs. IPOs



OFE = private pension funds in Poland

Source: Haver analytics, WSE, Bloomberg.

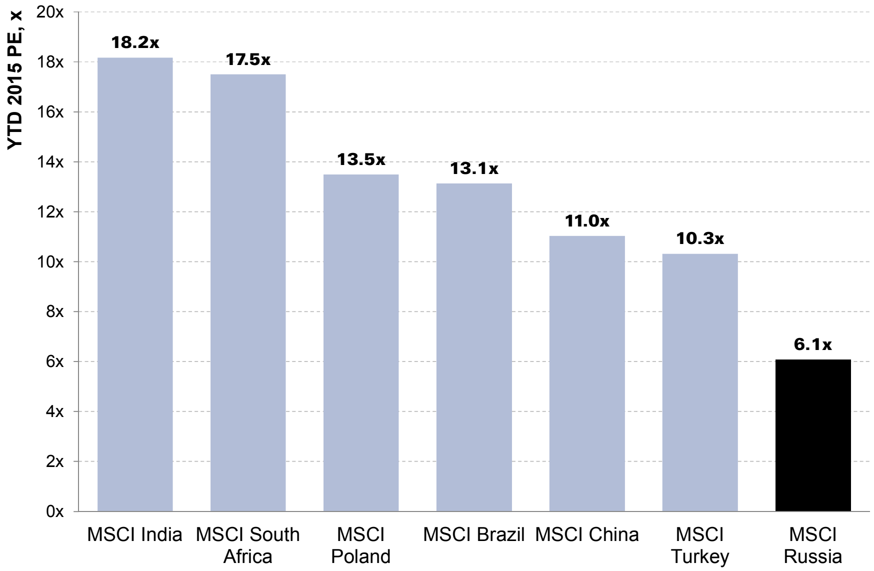
Exhibit 15: Pension funds usually push for higher dividends
Dividend yield of markets



Source: Bloomberg.

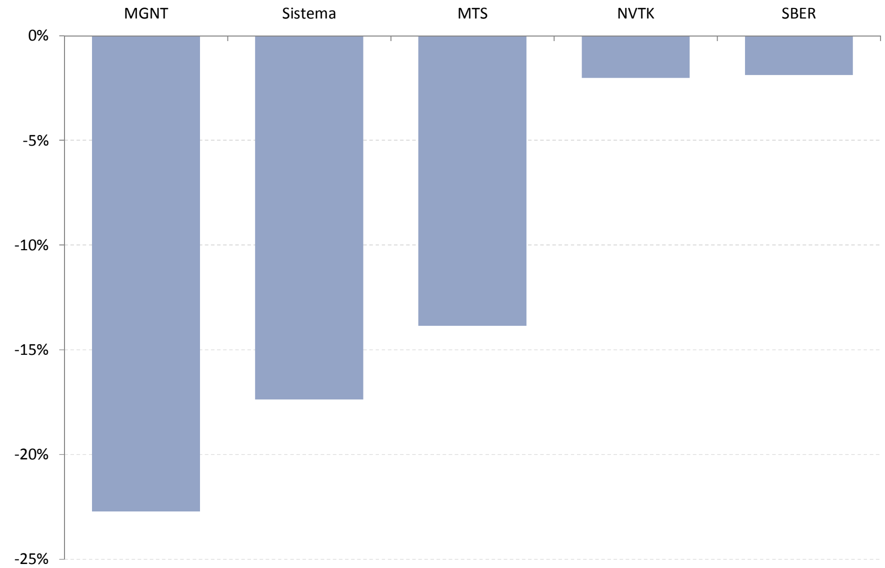
Finally, we believe a large and active domestic pool of capital will move deal activity onshore and ultimately reduce residual premiums seen by London-listed depository receipts of some Russian stocks. We believe Moscow Exchange is particularly well positioned to benefit from this trend, while the local shares of Magnit could see solid performance if their discount to the depositary receipts contracts.

Exhibit 16: Valuations of Russian stocks could improve…
P/E of MSCI indices by countries



Source: Bloomberg.

Exhibit 17: …and GDR premiums vs. local shares could shrink
Discount of local stocks to GDRs



Source: Bloomberg.

Exhibit 18: MOEX, Magnit and Alrosa could be key beneficiaries of pension system development

Name	Rating	Upside to 12m price target	Market cap, US$ bn	6m ADV US$ mn	Key stock themes
MOEX	Buy	43%	2	8	**Infrastructure & dividends** **-** MOEX is the main Russian trading venue, and should benefit from any increase of equity and fixed income market activity - We expect MOEX to keep increasing its dividend payout and believe development of the pension system supports the dividend side of the story
Magnit (local shares)	Buy	33%	16	22	**Discount of local shares vs. GDRs** - Better market valuations and lower volatility should drive local market trading activity, which would narrow the discount of local shares to GDRs - In addition it could create incentive for index providers to include local shares into indices
Alrosa	Buy	72%	7	9	**Dividends** - We currently expect Alrosa to distribute 50% of its net income to shareholders. However, as a company with strong FCF generation it could increase dividend payout if shareholder attention to dividends becomes higher

Source: FactSet, Goldman Sachs Global Investment Research.

Exhibit 19: Russian names with MICEX listing should benefit from local markets' development as well
List of the Russian names that are covered by GS and have Russian listing

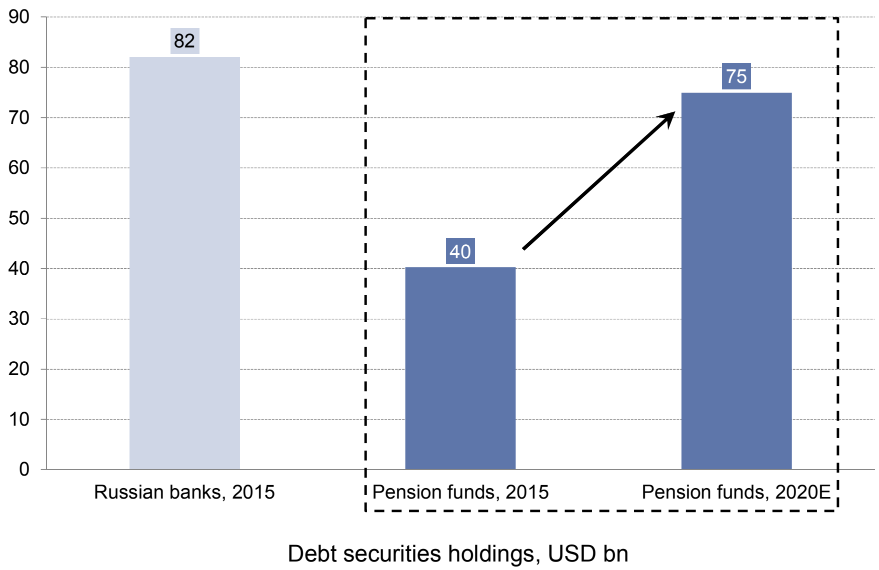
Company	Sector	Market cap, US$ mn
Gazprom	Energy	43 355
Rosneft	Energy	33 924
Lukoil	Energy	25 779
Novatek	Energy	24 403
Norilsk Nickel	Metals and Mining	22 903
Sberbank	Financial Services	21 639
Magnit	Retail	21 336
Surgutneftegaz	Energy	20 342
JSC VTB Bank	Financial Services	11 972
Gazprom Neft	Energy	9 672
Tatneft	Energy	9 083
Uralkali	Metals and Mining	8 573
Severstal	Metals and Mining	8 365
MegaFon	Telecoms	7 312
Novolipetsk Steel	Metals and Mining	6 982
Alrosa	Metals and Mining	6 649
Mobile Telesystems	Telecoms	6 444
United Co. Rusal	Metals and Mining	6 270
Bashneft	Energy	4 239
Yandex NV	Media	3 406
Magnitogorsk Steel	Metals and Mining	3 204
Sistema JSFC	Telecoms	3 045
Rostelecom	Telecoms	2 758
RusHydro	Utilities	2 708
E.ON Russia	Utilities	2 368
Moscow Exchange	Financial Services	2 192
Qiwi	Financial Services	1 236
LSR Group	Construction	860
TMK	Metals and Mining	782
Globaltrans	Transportation	612
Aeroflot	Transportation	564
Dixy Group	Retail	531
M-video	Retail	474
Total		**329 383**

Source: FactSet, Goldman Sachs Global Investment Research.

Fixed income: Lower rates, demand for new products

Despite the reallocation into equities that we expect, pension funds will likely remain large holders of fixed-income instruments. In Exhibits 20-21, we show that the current holdings of debt securities by pension funds at $40 bn are already equal to half of the entire banking systems holdings of debt securities, and we believe that pension funds can catch-up by 2020. This demand, in our view, may contribute to declining real interest rates in the country, as they remain way above EM median.

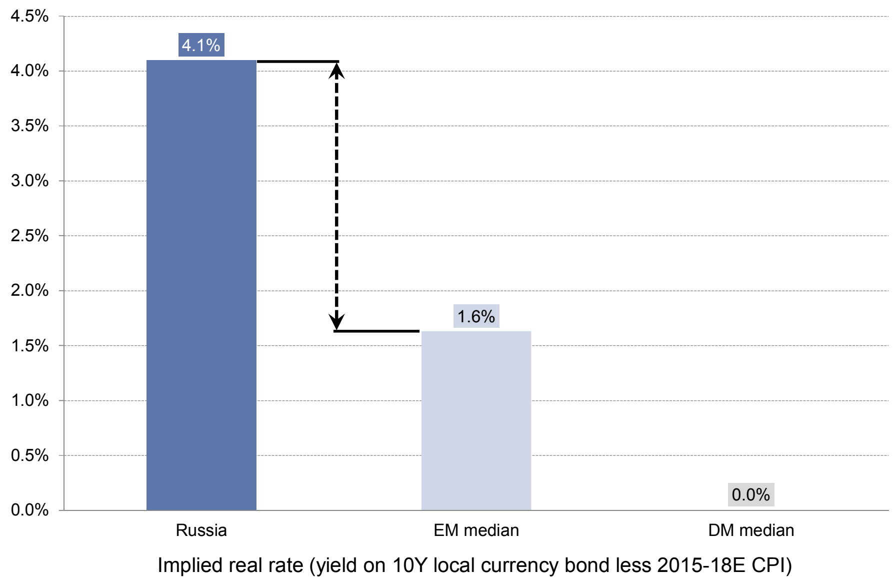
Exhibit 20: Pension funds will likely provide new inflow into debt markets, compared with all Russian banking system…
Holding of Russian debt - banks vs. pension funds*



Assuming by 2020 funds will keep c.40% of the portfolio in debt securities

Source: CBR, Goldman Sachs Global Investment Research.

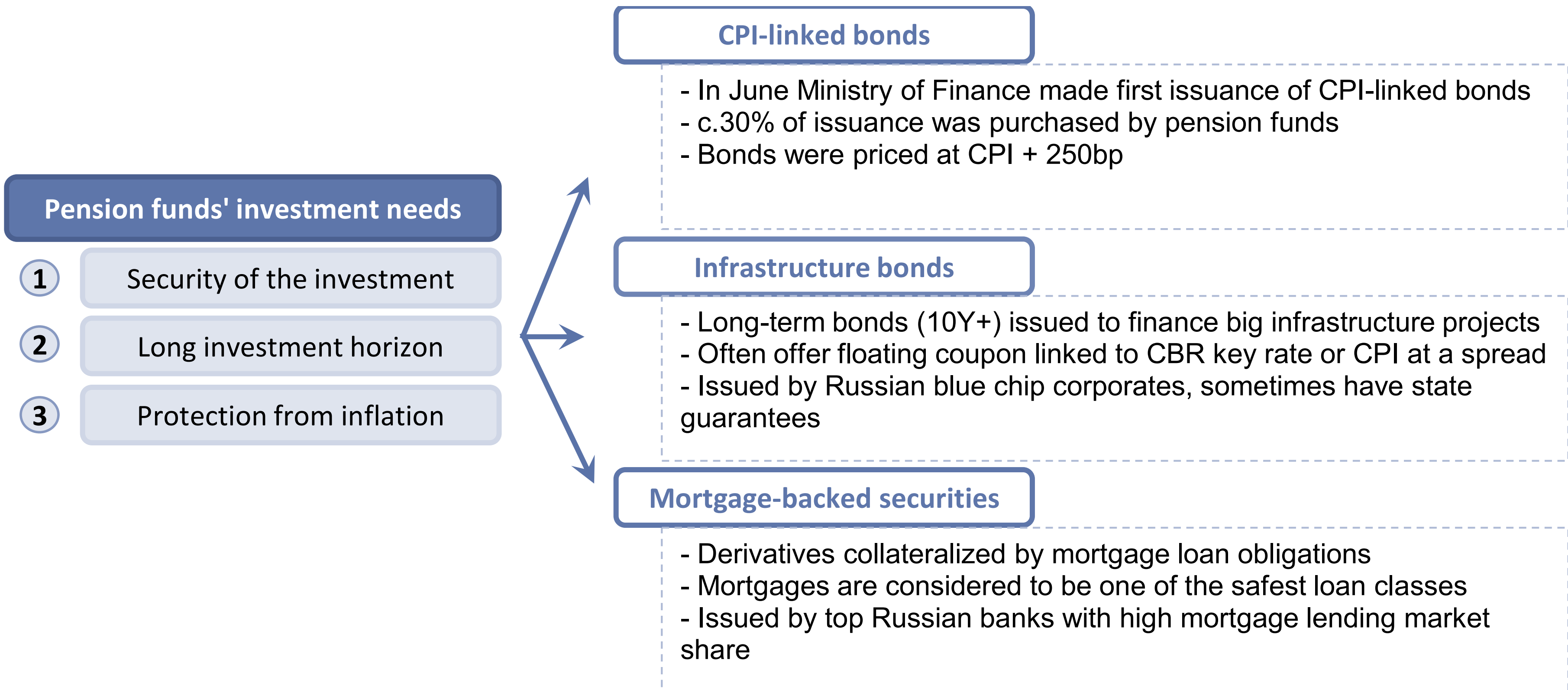
Exhibit 21: …which should decrease Russia's real rates
Real rates in Russia vs. EM and DM



Source: Bloomberg, Goldman Sachs Global Investment Research.

We also believe pension funds will generate demand for long-term, inflation-linked instruments. Not surprisingly they have been among the key buyers for inaugural CPI-linked bonds from the Ministry of Finance and are active buyers of infrastructure bonds.

Exhibit 22: Investment needs of pension funds can stimulate development of new financial products
New fixed income products for pension funds



Source: Goldman Sachs Global Investment Research.

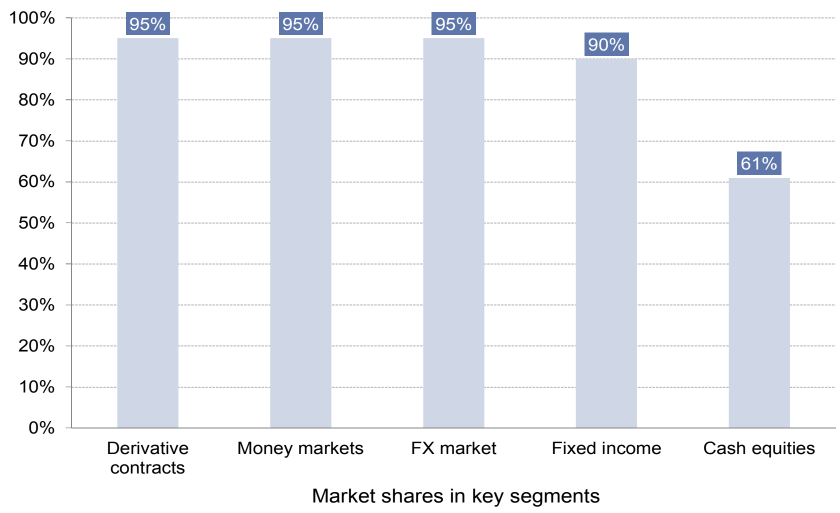
MOEX (Buy): Main beneficiary of capital market development

Being the main Russian listing and trading market, we believe that Moscow Exchange (MOEX.MM, Buy, 12-month price target Rub102.0) is best positioned to benefit from the development of local capital markets. MOEX has a diversified business portfolio with a high degree of vertical integration and dominant market positions in almost every segment, thus higher volumes would have a very positive effect on its earnings. Additionally, we believe higher shareholder attention to cash distribution should improve valuations of dividend paying stocks: we expect MOEX to increase its dividend payout ratio from 55% in 2014 to 70% by 2017. On our estimates MOEX trades at 8.8x/7.6x 2016/17 P/E, a 46%/50% discount vs. the global exchanges median.

MOEX should capture most upside from local market development due to its leading positions in almost every part of capital markets (see Exhibit 23). Over the last few years MOEX has invested heavily in infrastructure development (e.g. transition to T+2, partnership with Euroclear/Clearstream), and sizably increased its capital base, thus standing ready if volumes increase.

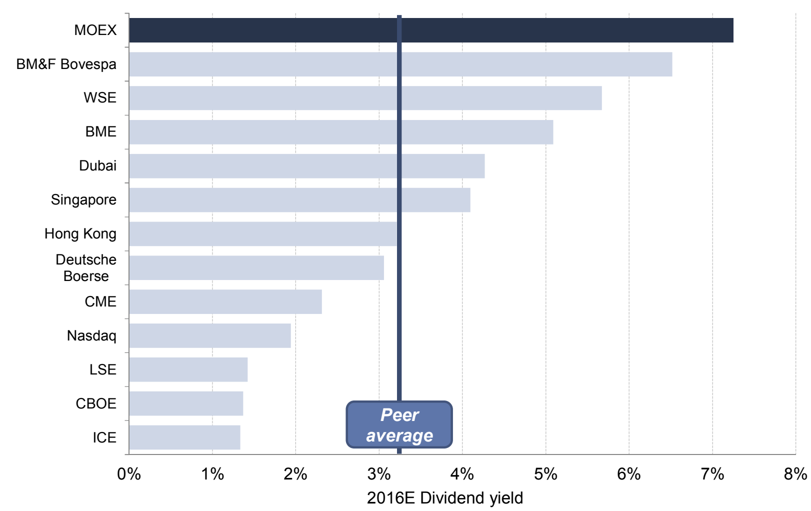
In an environment of higher shareholder attention to cash distributions, dividend names will likely be valued more. We expect that during the presentation of the new dividend policy in September MOEX will announce a gradual increase of its payout (we expect 70% payout by 2017 from 55% in 2014). We don't see many obstacles to this as: **(1)** MOEX already completed its largest investments and operates a modern infrastructure, and **(2)** National Clearing Centre, MOEX's clearing house, is adequately capitalized and can sustain capital organically. MOEX has a 2016E dividend yield of 7%, highest among global exchange peers (Exhibit 24). We value MOEX using a three-stage dividend discount model.

Exhibit 23: MOEX has dominant market positions
Market shares of Moscow Exchange in the major business segments



Source: Russian exchanges, Goldman Sachs Global Investment Research.

Exhibit 24: Moscow Exchange offers a best-in-class dividend yield
2016E dividend yield of the global exchanges



Source: Bloomberg, FactSet, Goldman Sachs Global Investment Research.

Magnit (Buy): Changes in Russian capital markets to support strong fundamental story

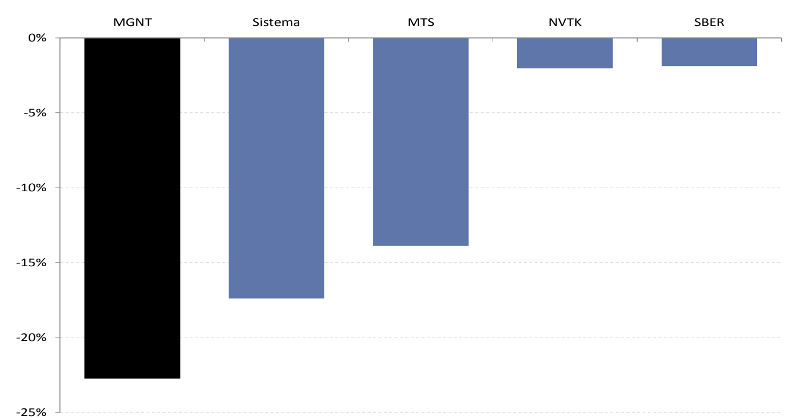
We view Magnit as one of the strongest investment stories in the Russian consumer space due to its best-in-class execution, attractive growth profile (supported by a strong balance sheet) and CF generation (translating into solid cash returns). We also view the company as one of the key beneficiaries of convenience and trading down trends highlighted in our recent consumer report (*Russian consumer close-up*, July 6, 2015). We believe Magnit local shares offer more attractive exposure to the above themes due to their 25.5% discount to GDRs, which we view as unjustified. We expect this discount to narrow supported by improving activity in Russian equity markets post pension fund reform.

Magnit – Structural leader in Russian consumer space. We expect the company to remain one of the fastest growing food retailers in our coverage (next 5-year RUB CAGR of 24%) due to its best-in-class execution coupled with a strong balance sheet. Further its focus on improving efficiency and CF generation supports our expectations of solid cash returns (CROCI to improve to 21.5% from 18.5% in 2015-19E) and increasing dividends (we forecast the payout ratio to crease to 60% in 2019 from 40% in 2015). We value both Magnit shares using an EV/GCI/CROCI methodology applying 12.5x target multiple to 2016 estimates.

Magnit is one of the key beneficiaries from convenience and trading down trends which we highlighted in our recent report. Over 75% of Magnit's revenues come from the convenience format oriented towards a low income population where proximity to customers and attractive prices are the key competitive advantages. The company is the market leader in this format in Russia (soft discounters/convenience stores) with over 40% market share.

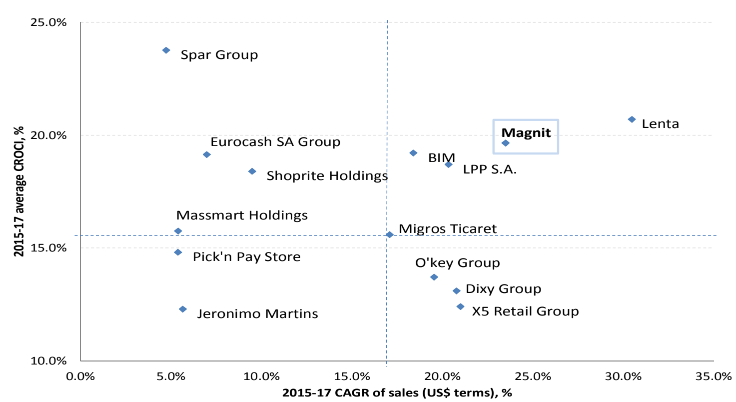
We expect the discount of local shares to GDRs to narrow; prefer locals to GDRs. We believe the current discount of Magnit's local shares to GDRs (25.5% - one of the largest among Russian large caps) is not justified given exposure to the same high quality investment story and similar liquidity profiles as GDRs. In our view expected pension funds reform may accelerate contraction of the discount. We thus believe Magnit local shares offer more attractive exposure to stock-specific fundamental story as well as key trends in Russian consumer and structural changes in the Russian equity market.

Exhibit 25: Magnit remains the only large cap with such a high discount of locals to GDRs, which we view as unjustified
YTD median discount of local shares to GDRs/ADRs, %



Source: Datastream.

Exhibit 26: MGNT remains one of the most attractive retailers both in Russian and CEEMEA space due to its solid growth/return profile
2015-17 CAGR of sales (US$ terms) vs. CROCI (%) for CEEMEA retailers



Source: Goldman Sachs Global Investment Research.

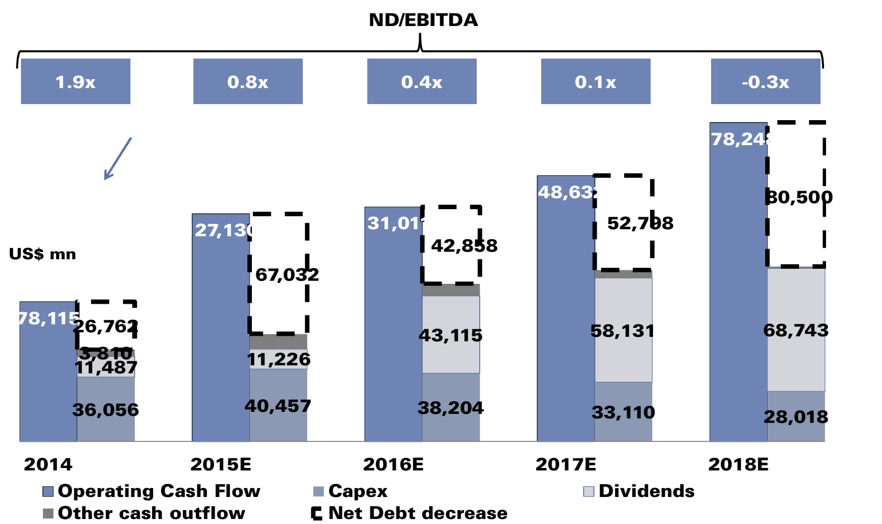
Alrosa (Buy): Dividends/deleveraging to come as solid FCF generation sustained

We view Alrosa (ALRS.MM, Buy, 12-month price target RUB109.0) as offering the best exposure in our coverage to the diamond market, where we see attractive long-term fundamentals. In addition, we believe Alrosa could be of special interest to pension funds, because of its high FCF yield and low leverage, implying substantial upside to dividend payout.

Our bullish view on Alrosa is driven by our expectations that it will continue to outperform vs. benchmarks and deliver sustainable industry-leading returns (2015-18E average CROCI of 30% vs. mining peer average of 10%) on the back of its high profitability based on stringent cost control, volume growth and FX tailwinds (average 2015-18E EBITDA margins of 54% vs. mining peers average of 32%). We note that our view on Alrosa is predicated by our long-term positive outlook on the diamond market and its strong positions driven by world-class mineral reserves base, and solid sales structure franchise.

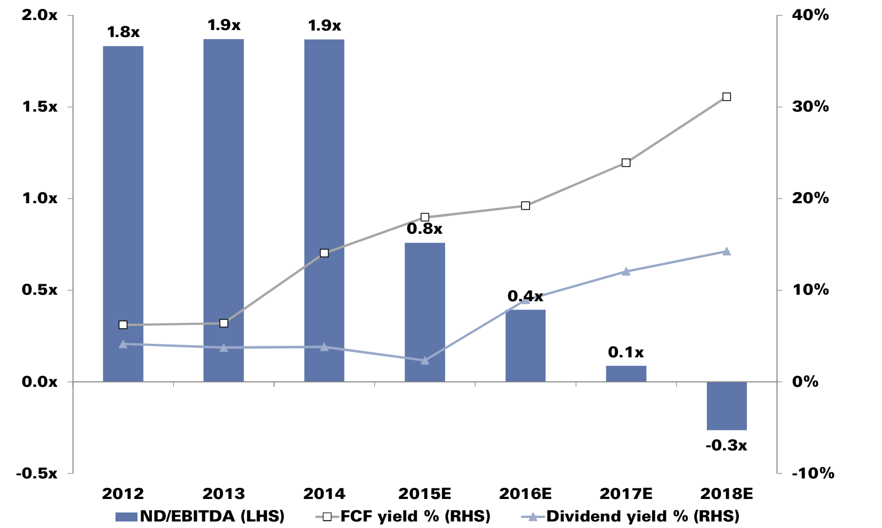
We expect Alrosa to increase its dividend payout ratio to 50% in 2016 from the minimum rate of 35%. This forecast is underpinned by our expectations of strong cash flow in the coming years (2015-18E FCF yield of 24%) and low leverage (net debt to average 2015-17 EBITDA is 0.5x). Given robust fundamentals and potential for increase in dividend yields, we believe Alrosa is one of the best ways to invest in the rise of pension funds theme. We value Alrosa using target EV/EBITDA multiple applied to 2016E estimates.

Exhibit 27: We expect dividends and debt reduction to be the key uses of cash



Source: Company data, Goldman Sachs Global Investment Research.

Exhibit 28: Strong FCF generation should allow the company to pay higher dividend yield



Source: Company data, Goldman Sachs Global Investment Research.

Key risks

We see three important risks to our thesis:

1. The government's commitment to reform is key for Russian pension funds to continue receiving pensioners' contributions. In 2015 the Pension Fund of Russia is projected by the government to run a deficit of c.Rub623 bn which will be covered by state subsidies, and therefore we expect a debate within the government on whether this gap has to be covered via budget revenues, or through a nationalization of pension contributions. In essence, the government needs to find revenues today to allow for creation of a saving pool for tomorrow.
2. The government or Central Bank may impose restrictions on the investment strategies of pension funds, including directed purchases of certain instruments which is not an uncommon practice – for a long time South Africa has "prescribed assets", mandating how pension money has to be invested.
3. Most pension funds are under the umbrella of big financial groups (Exhibit 29), creating risks of related-party transactions that CBR has to closely monitor. Also, corruption within any of the funds could discredit the whole concept of private pension funds, and thus effective supervision will continue to be extremely important.

Key risks to our view and price targets:

MOEX: Risks to our view are lower-than-expected client balances, weaker volumes, lower-than-expected dividend payout ratio and higher cost inflation.

ALRS: Risks to our view are lower-than-expected diamond prices, FX volatility, cost inflation, growth execution slippages, and regulatory/fiscal risks.

MGNT: Risks related to the macro and consumer situation in Russia, competition, regulation (changes to the current Retail Law), management execution on cost optimization and capital investments.

Appendix 1: Market structure

Exhibit 29: Concentration of pension fund market has increased substantially since 2008; top 10 groups now control over 80% of assets

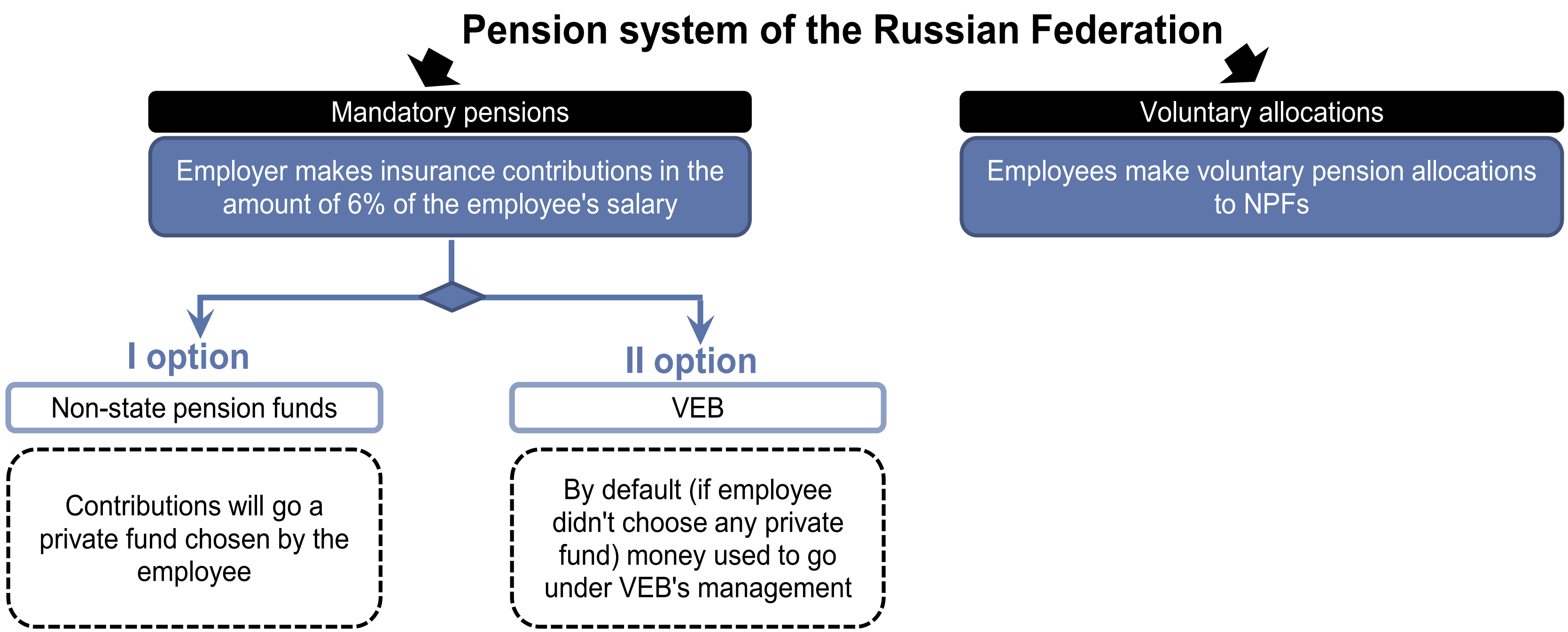
Key non-state pension funds (NPFs) in the pension market, 2015, MS – Market share of total assets

#	Group name	NPFs of the group	AUM, USD bn	MS, %
1	**Alor**	NPF Promagrofond, Nasledie, KIT-finans, Gazfond, Gazfond Pension Savings	10.6	25%
2	**Otkritie**	NPF Lukoil Garant, NPF of electroenergy	5.5	13%
3	**Russian Railways**	NPF Blagosostoyanie	4.1	10%
4	**Sberbank**	NPF Sberbank	3.8	9%
5	**O1**	NPF Buduschee, Stalfond, Telekom-soyuz	3.6	9%
6	**Bin**	NPF Evropeiskiy, Regionfond, NPF Raiffeisen, Doverie, Obrazovanie i nauka	2.2	5%
7	**Rosgosstrakh**	NPF RGS	1.7	4%
8	**VTB**	NPF VTB	1.4	3%
9	**Transneft**	NPF Transneft	1.0	2%
10	**Renova**	NPF Bolshoi, Atomgarant, Vladimir	0.8	2%
Total top 10 NPF groups			**34.6**	**83%**

Source: CBR, NPFs data, RusRating, Goldman Sachs Global Investment Research.

Appendix 2: Russian pension system structure and key developments

Exhibit 30: Design of the Russian pension system



Source: PFR, Goldman Sachs Global Investment Research.

Exhibit 31: Key developments in Russian pension system

Summary of the key regulatory changes in Russian pension system

2004-13	2013-14	2015	2016
Establishment of the Russian pension system	**State 'froze' inflow of the new pension money**	**Government decided to return withdrawn pension money back**	**Future initiatives**
- Government granted to private pension funds (NPFs) the right to manage pension savings	- CBR initiated due diligence of private funds and 'froze' any new savings' contributions	- Biggest NPFs got CBR approval and got back pension contributions for 2013-14 (over Rub500 bn)	- Management fee: 1% of AuM + 15% of investment income
- Every employer was obliged to contribute 6% of employee's annual gross salary to pension savings pool		- CBR eased profitability requirements for NPFs	- Total exposure to banks' bonds and deposits is limited to 40% of the portfolio

Source: PFR, Goldman Sachs Global Investment Research.

Appendix 3: Regulatory constraints on NPF investments

Exhibit 32: Equities and corporate bonds can account for 65%/80% of NPF's portfolio. Going forward CBR could limit amount of funds invested in banks' deposits and fixed income instruments

Regulatory limits on non-state pension funds investments	
Government securities	100%
Municipal securities of the subjects of the Russian Federation	40%
Municipal bonds	40%
Corporate bonds	80%
Banking groups' bonds & deposits (max combined)*	60%
Equities	65%
Shares in the unit trusts	20%
Mortgage backed securities	40%
Max share of funds in credit organization and affiliated entities (including deposits and securities)	25%

**could be changed to 40%*

Source: CBR, Goldman Sachs Global Investment Research.

Appendix 4: Design of the Polish and SA pension systems

Exhibit 33: Pension system of Poland resembles Russia's, having a big pay-as-you-go (PAYG) element and a mandatory funded part. The South African pension system is very different, with no obligatory employer contributions and well-developed voluntary part

		Mandatory pensions		Voluntary pensions
		Pillar I	Pillar II	Pillar III
Poland	***Contribution:***	16.72% of gross payroll	2.8% of gross payroll: employee has a choice of transferring all contributions to Pillar I or Pillar II	Basic contribution of 7% of the gross payroll, additional contributions should not exceed 4.5x of average Polish wage
Poland	***Pay-as-you-go or funded?***	PAYG	Funded	Funded
Poland	***Type of contribution:***	Notional defined contribution on a virtual account	Defined contribution (=real money) on mandatory individual accounts	Defined contribution (=real money)
Poland	***Managed by:***	State - Social Insurance Institution (ZUS)	Private institutions - Open Pension Funds (OFEs), which are governed by Pension Societies (PTEs)	Private institutions
South Africa	***Contribution:***	Means-tested social security old-age grant (Rn1,260 per month)	--	Occupational pensions (average contribution of c.15% of earnings)
South Africa	***Pay-as-you-go or funded?***	--	--	Funded
South Africa	***Type of contribution:***	Financed from general government revenues	--	Defined contribution (=real money) on mandatory individual accounts
South Africa	***Managed by:***	State	--	Private institutions - variety of pension schemes

Source: OECD, Goldman Sachs Global Investment Research.

Disclosure Appendix

Reg AC

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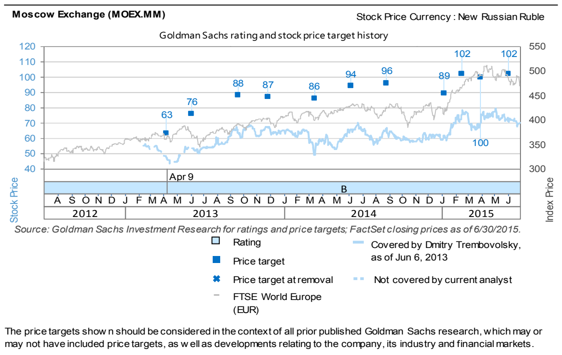

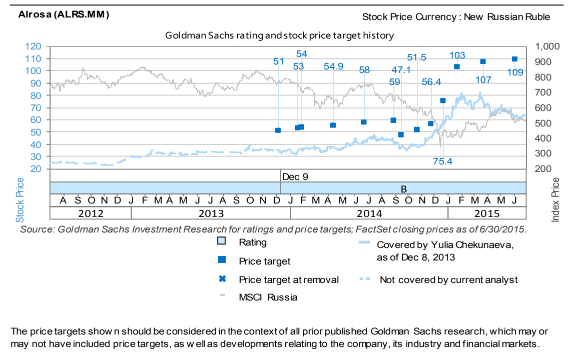

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