

ECB's QE 2: Number crunching and trade ideas

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- ECB President Mario Draghi's speech in Sintra fueled market expectations that the ECB may cut rates further and embark on another round of QE.
- We expect the ECB to announce an initial program of EUR 300-400bn in APP to be carried out over nine months next year (EUR 35-45bn per month), followed by some tapering in the last three months of the year; we expect 30% of the program to involve private securities, and the rest to be in PSPP.
- In order to do so, the ECB will most probably have to relax one of their self-imposed limits (either the capital key or the ISIN/issuer limits), as the Netherlands, Germany and Finland, at least, will hit the ISIN/issuer limits with such a program. We think relaxing the ISIN/issuer limit might be the least controversial choice.
- We calculate that raising the ISIN/issuer limit to 50% (for CAC and non-CAC bonds) would provide the ECB an additional EUR 650-800bn of PSPP-eligible securities to buy, which would, in theory, cover the size of program we are expecting two to three times over. So, at least initially, the ECB would be able to raise the ISIN/issuer limit much more gradually.
- Using our fair value for the 10Y Bund real yield, we estimate that an APP in line with our expectations, coupled with one 10bp cut of the depo rate, would cause a 20-30bp decline in 10Y real Bund yields (to -1.50%).
- Our favorite trade to be executed ahead of the re-opening of QE would be 10/30Y flatteners on the French, Belgian and Spanish curves. We also expect credit spreads to tighten, and in this respect the 10Y SPGB/Bund spread is one offering still decent room for performance.

1. The case of ECB re-opening QE

Following ECB President Mario Draghi's speech in Sintra, investors started to speculate that the ECB was ready for another round of stimulus. This would come in the form of rate cuts (in our baseline, the first would be in September along with mitigating measures for banks) and possibly the reopening of QE at the turn of the year.

The re-opening of QE would probably involve assets from the private sector, as well as government bonds.

On government bonds, the issue is that a few countries, especially the Netherlands, Finland and Germany, might be very near their ISIN and issuer limits¹.

Therefore, if the ECB wants to re-open QE, they will face the tough choice of having to relax one of their self-imposed limits (the capital key or the ISIN/issuer limit).

From reading the European Court of Justice ruling on QE, it seems that the least controversial way to proceed would be to relax the ISIN/issuer limit.

While the ISIN limit for supranational and international institutions bonds have already been raised to 50%, the ISIN and issuer limit for government, agency, regional and local bonds still stands at 33% or 25% (The limit is 25% for bonds without euro-area model CACs, so usually these are bonds issued before 1 January 2013). Note that all thresholds are calculated on nominal values².

In this piece, we provide our view of how a new program would be structured in terms of monthly flows and the breakdown between private and public assets. We then estimate how much government paper would become available if the ECB raised the ISIN limit for government, agency and regional bonds to 50%. Finally, we estimate the impact of such a program on Bunds and conclude by providing some trade ideas for a scenario in which the ECB reopens QE next year and raises the ISIN and issuer limits.

2. How would an APP program be structured?

The ECB's APP started in October 2014 with the Eurosystem purchasing ABS and covered bonds³. In March 2015, the Eurosystem started the PSPP and finally, in June 2016 it started purchasing corporate bonds.

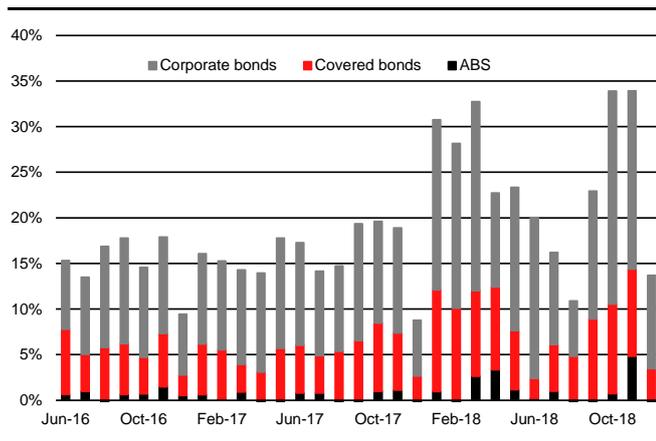
¹The issue/ISIN limit refers to the maximum share of a single PSPP-eligible security that the Eurosystem is prepared to hold. The issuer limit refers to the maximum share of an issuer's outstanding securities that the ECB is prepared to buy and it is calculated as 33% of the total eligible assets in a country. Please see <https://www.ecb.europa.eu/mopo/implement/omt/html/pspp-qa.en.html>. Also some small countries, such as Slovakia, are very near the ISIN and issuer limit, but given the very small amount that the Eurosystem buys of these countries, this issue could be solved with either small deviations from the capital key or by buying supranational bonds.

²The rationale behind the ECB's decision to set the ISIN limit for government, agencies, regional and local bonds at 33% is that the ECB does not want to become a blocking minority in case of a restructuring of a eurozone country's debt, consequently risking being accused of monetary financing. Recently, there have been talks in the market that one way to overcome this issue and raise the ISIN and issuer limit would be to use disenfranchisement, but this option also does not seem to be straightforward, especially from the legal point of view.

³The ECB had already purchased covered bonds in the past, in two phases, one in 2009-2010 and another one in 2011-2012.

We expect the ECB to include private sector securities in its program next year, in line with the previous QE. Looking at how the ECB has distributed its purchases among the various asset classes since June 2016, on average more than 80% went to the PSPP, around 12% to corporate bonds, 6% to covered bonds and 1% was spent on ABS (Chart 1 shows a detailed breakdown of the private asset purchases).

CHART 1: APP BREAKDOWN BY PRIVATE ASSETS PURCHASED (SINCE JUNE 2016, WHEN THE EUROSISTEM STARTED PURCHASING CORPORATE BONDS)



Source: ECB, Bloomberg, UniCredit Research

If the ECB reopened QE next year, we expect monthly purchases of about EUR 35-45bn for nine months, and possibly some tapering at the end of 2020 at the tune of EUR 20bn per month. We expect that under a potential new QE program, the ECB would maintain the share of private sector purchases at the higher end of last year's distribution, i.e. 30% or more, resulting in a monthly rate of EUR 10-12bn. We expect that within private sector purchases, corporate sector purchases will again dominate (probably accounting for two-thirds of purchases) simply due to the more limited availability of covered bonds and ABS. As a consequence, in this scenario, the ECB would maintain corporate bond purchases at a monthly rate of EUR 8-10bn⁴.

This means that the PSPP would amount to EUR 23-30bn on a monthly basis in the first nine months.

What quantity of government bonds would the ECB purchase in the largest eurozone markets in 2020?

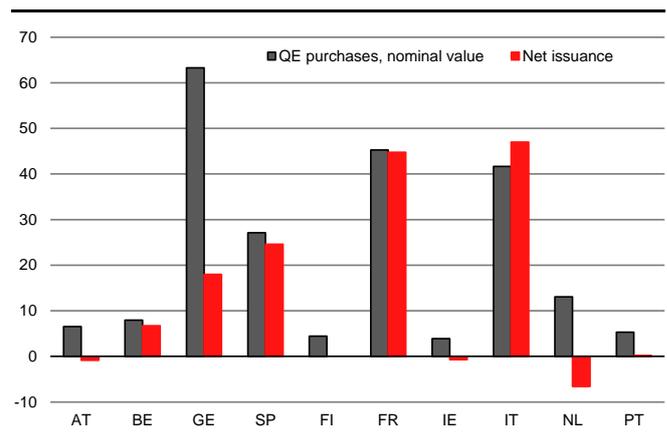
If the ECB buys EUR 35-45bn of assets per month for nine months and then starts tapering to EUR 20bn per month in the final three months of 2020, the program for 2020 would amount to EUR 360-460bn, or around EUR 250-320bn in PSPP.

⁴ Please see "How many private assets would the ECB buy in the event of QE2?" in Macro and Markets no. 153, 12 July 2019

We assume that 10% of the PSPP will be of supranational and international institutions bonds, in line with the previous QE. We then assume that the Eurosystem will buy each country according to their formal capital key (rather than the one applied in the previous QE⁵) and correct this amount by the prevailing current average prices. In this scenario, in 2020, the Eurosystem would buy EUR 60-65bn of German securities, EUR 25-30bn of Spanish securities, EUR 45bn of French securities and EUR 40bn of Italian securities (all are nominal values).

Chart 2 compares the QE purchase amounts with the net issuance in the largest eurozone countries and shows that in Italy, the PSPP would cover part of the net financing next year, it would cover the entire net financing requirements in Spain, France and Belgium and cover much more than the net financing in Austria, Finland, Germany, Ireland, Portugal and the Netherlands.

CHART 2: PSPP PURCHASES IN 2020 VS. NET FINANCING (ALL NOMINAL VALUES)



All values for PSPP purchases have been calculated using current market prices.

Source: ECB, Bloomberg, IMF, UniCredit Research

The ECB cannot re-open QE in this form without hitting its self-imposed constraints

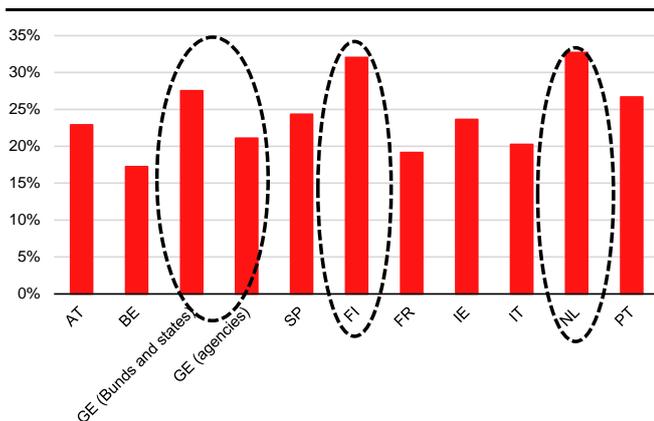
Chart 3 shows our estimate of total outstanding PSPP-eligible assets held by the Eurosystem for the main eurozone countries as a percentage of total outstanding assets.

Calculating the nominal amount of eurozone country government holdings by the Eurosystem within the PSPP is not easy, as the only information the ECB provides is the market value of its holdings and the additional information provided by the national central banks is not enough to obtain a clearer picture. Therefore, we have made a few assumptions in our calculations:

⁵ In implementing the PSPP in 2015-18, the Eurosystem de facto moderately deviated from the formal ECB capital keys in purchasing securities of some eurozone countries.

- Given that the ECB only publishes APP figures at market values, we use current prices to transform figures into nominal values. This is a simplification and could bias our results upwards.
- For Germany, we make an explicit distinction between government bonds and state bonds and agencies. Indeed, the Bundesbank provides the figures for their holdings of Bunds and state bonds and we calculate agencies as a residual (14% of the total PSPP purchases of German securities).
- We assume that if the ECB raised the ISIN limit, it would raise it to the same threshold both for CAC and non-CAC bonds. At present, the ISIN limit for bonds containing CACs is 33%, while for older bonds without CACs it is 25% (note that non-CAC bonds are progressively diminishing in outstanding, as since January 2013, eurozone countries are only issuing CAC bonds). In our exercise, we assume that the ISIN limit is raised to 50% for both categories.

CHART 3: WHICH COUNTRIES ARE HITTING THE ISIN LIMIT? PERCENTAGE OF TOTAL OUTSTANDING GOVIES HELD BY THE EUROSYSTEM



For Italy, Spain, Portugal and Ireland these figures also include the ECB's Security Market Program, as this also has to be accounted for in the issuer and ISIN limit rule. Source: ECB, Bloomberg, UniCredit Research

Chart 3 clearly shows that the countries that would need an increase in their ISIN and issuer limits are the Netherlands, Germany and Finland. In particular, our calculations show that the Eurosystem is holding 33% of the total outstanding Dutch government bonds, implying that the country has hit both the ISIN limit and the issuer limit.

We do not consider small countries in our analysis, as the limit could be overcome for these countries by moderately tweaking the capital key (as the ECB did in the previous QE) or by buying supranational bonds, given that the amount of purchases from these countries would be relatively small.

Table 1 also shows an alternative way of verifying in which countries our expected QE program would hit the limits and in which it would not. In Table 1 we compare the amount of securities we expect the Eurosystem to buy in the major eurozone countries within the PSPP with the available securities outstanding in case the ISIN limit remained at 33% (this is a simplification because for some bonds the ISIN limit is at 25%). The table clearly shows that the Netherlands, Finland and Germany would not have enough paper, Portugal and Ireland would be borderline cases, while the rest of the eurozone countries would have enough paper. Also consider that we are expecting very little positive net issuance from Germany, the Netherlands and Finland together in the coming year; this factor makes the case for an increase in the ISIN and issuer limit even more compelling for these countries.

TABLE 1: GERMANY, FINLAND AND THE NETHERLANDS DO NOT HAVE ENOUGH PAPER AVAILABLE FOR QE2

EUR bn	Additional purchases available with 33% of ISIN limit (with no extra net supply)	Expected PSPP purchases in QE2
AT	10	7
BE	48	8
GE	39	63
SP	45	27
FI	0	4
FR	162	45
IE	4	4
IT	164	42
NL	0	13
PT	6	5

Source: ECB, Bloomberg, UniCredit Research

Therefore, in order to re-open QE, the ECB will have to tweak one of its self-imposed limits and we think the less controversial solution in this respect would be raising the ISIN and issuer limit.

3. How much additional firepower would the ECB have if the ISIN limit was raised to 50%⁶?

In this section, we provide an estimate of the total amount of an additional QE program, based on the assumption that the ECB raise the ISIN limit to 50%.

Given that the PSPP also include German state bonds, which de facto provide a bit more breathing space for the purchase of securities in Germany, we concentrate on the Netherlands, which we calculate has already hit both the ISIN and issuer limits.

⁶ The issuer limit would also be raised, but we run the calculations just on the ISIN limit.

In this respect, we calculate the total volume of the PSPP by 1. calculating the additional volume available for purchases if the issuer and ISIN limits are raised to 50% and 2. applying the actual capital key prevailing during QE.

We calculate that the volume of additional PSPP the ECB would be able to carry out would be in the range of EUR 650-800bn. Table 2 shows how we calculate this figure.

The last column shows the ratio between the additional purchases available once the ISIN limit has been raised to 50% and the capital key applied by the Eurosystem during the last QE. In other words, this number represents the maximum PSPP volume, assuming that the starting point is each country additional availability of paper to buy.

Given that the Netherlands is the country which is nearest the ISIN and issuer limits and therefore the most restricted in terms of availability of paper, we calculate the lower bound of the total PSPP volume starting from the Netherlands; we obtain that the lower bound of the PSPP would be around EUR 650bn.

Given that the Eurosystem has in the past showed some flexibility in applying capital keys⁷, we also calculate an upper bound, in case the applied capital keys for the Netherlands is lower than in the last QE and more paper become available to buy. The upper bound (EUR 800bn) is calculated starting from Germany. In the table, our calculations consider 50% ISIN limit for govies, states and agencies. But a more realistic approach might be to consider a 50% ISIN limit for govies and agencies and then assume that the maximum proportion of state bonds that the ECB could purchase is 15% of their total outstanding (as state bonds have proven difficult to purchase). This would result in an amount for the PSPP of EUR 800bn.

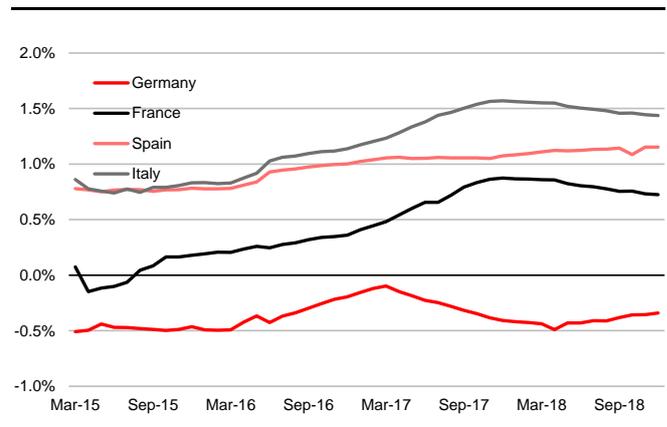
TABLE 2: NUMBER CRUNCHING ON THE UPCOMING QE

	Total PSPP (as of Dec18)	SMP	Mkt debt eligible outstanding	50% of eligible outst. as of now	Additional purchases available as of now (A)	Capital Key (B)	Tot. PSPP in QE 2 (A/B)
AT	48	0	177	88	40	2.7%	1499
BE	59	0	326	163	104	3.4%	3068
GE	457	0	1502	751	294	23.9%	1231
SP	215	13	827	413	186	12.0%	1544
FI	30	0	87	43	14	1.5%	890
FR	346	0	1539	769	424	19.4%	2190
IE	26	6	107	53	22	1.4%	1578
IT	334	34	1611	805	438	16.8%	2602
NL	93	0	254	127	34	5.3%	644
PT	31	5	128	64	28	1.7%	1625

- 1) In the table, all the amounts are nominal and expressed in EUR bn. We consider the current picture.
- 2) We use the effective capital keys that have been applied in the PSPP in 2015-2018, not the formal capital keys.

Source: ECB, Bloomberg, UniCredit Research

CHART 4: CUMULATIVE DEVIATION FROM CAPITAL KEY DURING QE FOR MAIN EMU COUNTRIES (%)



Source: ECB, Bloomberg, UniCredit Research

Considering that by raising the ISIN limit to 50%, we expect the ECB to have room for EUR 650-800bn of additional purchases within the PSPP (at nominal value), this means that, in theory, the ECB could continue its purchases at a pace of EUR 35-45bn per months (APP, market value) for two to three years. This is two-to-three-times longer than the program we envisage in our baseline scenario, so the ECB could well increase the ISIN/issuer limit more gradually at first and raise it further if it becomes necessary later on. Table 1 also shows that raising the ISIN/issuer limit is really only necessary in a few eurozone countries.

⁷ In its reinvestment guidelines the ECB said that portfolio allocation would be gradually adjusted to reflect the new capital keys. But once it reopens QE, we expect it to apply the same practical approach it used during the previous QE program, by allowing flexibility in the application of capital keys. The proportion of purchases of Dutch securities has not been much different from the actual capital key in the past, but it has generally been moderately lower and it could continue in this direction if QE is reopened.

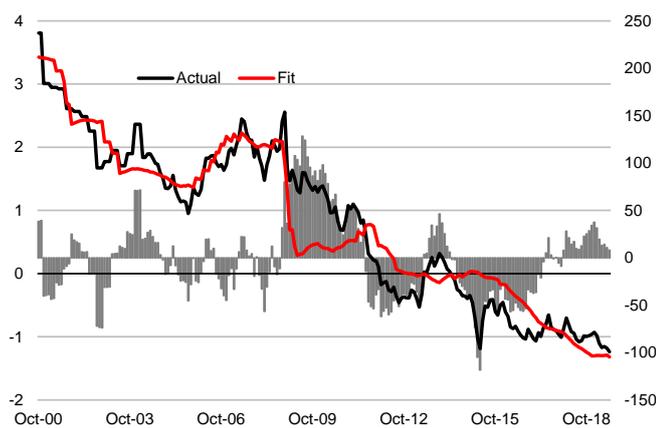
4. What would be the impact on Bunds of our baseline scenario for QE?

If we are right in expecting that the ECB will re-start QE at the turn of the year and that in order to do so, it will relax the ISIN and issuer limit, one of the first and most relevant effects will be to exacerbate the scarcity of safe government paper in the eurozone. This will be a relevant factor to take into account when forecasting the performance of Bunds in such a QE program.

To quantify the impact of our hypothetical QE program for next year, we use our fair value model for 10Y real Bund yields, which uses the depo rate, the eurozone Composite PMIs, the percentage of German debt held by the Buba and the percentage of German debt held by foreign investors as independent variables⁸. The model indicates that the 10Y real Bund yield should be around 10bp lower than where it is trading now. Moreover, we estimate that EUR 360-460bn in APP, coupled with one 10bp cut of the depo rate, would cause another decline in 10Y real Bund yields of almost 20bp (to -1.50%). Note that in this exercise, we assume that eurozone composite PMIs would not move and that foreign official holdings of Bunds as a percentage of total debt would also not change.

For reference, during the previous PSPP, the increase in Bundesbank holdings depressed 10Y Bund real yields by 70bp, and at the same time foreign official holdings as a portion of total German debt increased by 8%, leading to a further 46bp decline in 10Y German real yields. Finally, the 20bp decline in the ECB deposit rate over the same period led to a 13bp decline in the 10Y Bund real yield (see Table 3).

CHART 5: OUR FAIR VALUE MODEL FOR 10Y REAL BUND YIELDS



Source: Bloomberg, Markit, UniCredit Research

⁸ Please see [Rates Perspectives - Scarcity of Bunds to keep real yields low](#)

TABLE 3: SENSITIVITY ANALYSIS DURING QE

From Feb-15 to Dec-18	Buba holdings	Foreign officials holdings	Depo rate	Eurozone PMIs
Change in the variable	18%	8%	-0.20	-2.0
Change in the fit (bp)	-69	-46	-13	-1.86

Source: Bloomberg, Markit, UniCredit Research

In terms of the overall impact of QE on nominal yields, aside from our model, we should take into account what will happen to inflation expectations and breakeven rates. In this respect, we are constructive that at least when QE starts again this will fuel inflation expectations, as happened in 2016. This should offset some or all of the drop in 10Y Bund real yields.

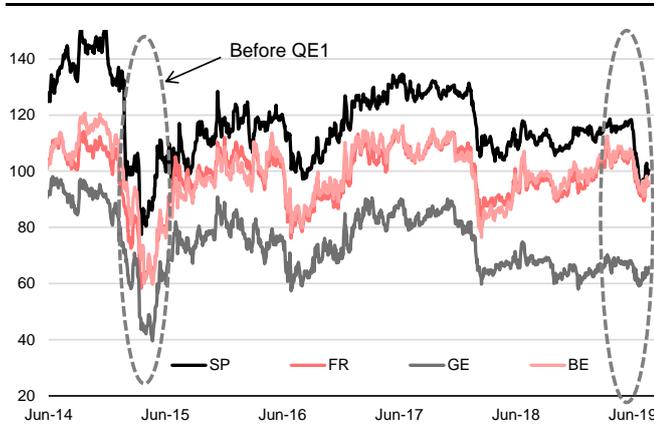
5. Trade ideas ahead of QE2

Most of the market movements that priced in QE in 2015 happened before the program started, between the end of 2014 and March 2015. We would expect a similar pattern this time. While it is very difficult to estimate if and how much QE is already priced into rates markets, we think it has only been priced partially so far. That said, some sectors on core curves, such as the 2/5Y, are already trading extremely flat and do not offer much room for further performance.

For this reason, we would instead concentrate on the extra-long end of the core curves and adopt a 10/30Y flattening strategy. Ahead of the start of the APP, between the end of 2014 and the beginning of 2015 (the start of the PSPP was announced on 22 January 2015, but markets had been expecting it for a couple of months before this), EGBs rallied, EGB curves flattened, also at the extra-long end, and credit spreads tightened. Core EGB yields are lower than they were at the end of 2015 and this leads us to think that extensions along the curves and the tightening of credit spreads could be even more pronounced than they were ahead of the last QE.

For this reason, we like 10/30Y flatteners, with the French, Belgian and Spanish curves having more room to perform (see Chart 6). Further support to this trade could come from the fact that the ECB said in their reinvestment policy that purchases of securities with a yield below the depo will continue to be undertaken to the extent necessary. This might indicate that the ECB prefers to purchase securities trading above the depo rate, a factor that would favor the extra-long maturities on the core curves even more.

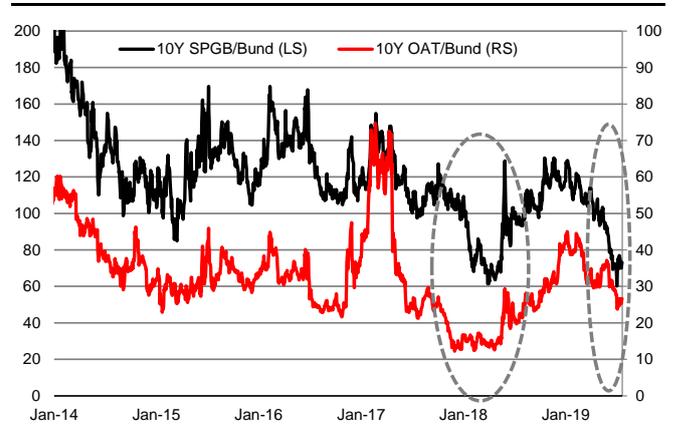
CHART 6: 10/30Y ON EGB CURVES SET TO FLATTEN AHEAD OF THE RE-OPENING OF QE



Source: Bloomberg, UniCredit Research

We also expect further credit spread tightening. In this respect, France and Belgium offer little upside against Bunds at the 10Y (probably 10bp or so, looking at the minimum levels reached during QE1), but SPGBs (and to a lesser extent PGBs) offer more room for tightening. Looking at the previous period of QE, ahead of 2015, SPGBs were trading wider against Bunds than they are now. However, back then Spain's rating was lower, the Spanish macro story was not as successful as it is now and core yields were higher. This time, we expect SPGBs to converge more towards bonds of semi-core countries. This will be highly dependent on whether non-resident investors continue to prefer buying Spain instead of Italy, regardless of the higher yield pick-up offered by the latter. With political instability and the writing of the 2020 budget in Italy dominating the headlines in 4Q, we do not expect heavy foreign flows into Italian debt. Therefore, in this respect, SPGBs will probably continue to be supported while investors expect further QE by the ECB.

CHART 7: WE SEE MORE ROOM TO TIGHTEN FOR SPGBS THAN FOR OATS VS. CORE DESPITE WHAT PAST PERFORMANCE INDICATES



Importantly, looking at what happened at the end of 2014/beginning of 2015, the timing of these trades would be before of the start of QE, so by year-end.

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SR 19/3

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