

ECB QE Monitor – December 05, 2017

> **The Eurosystem started its QE in March 2015. The five main episodes have been:**

- March 9 2015 (decision to purchase €60 bn of assets per month until Sept. 2016),
- December 3 2015 (decision to extend the QE it until March 2017),
- March 10 2016 (decision to increase monthly purchases from €60 bn to €80 bn from April 2016),
- December 8 2016 (decision to extend the QE until December 2017 at a reduced monthly pace of €60bn),
- October 26 2017 (decision to extend the QE until September 2018 at a reduced monthly pace of €30bn)

> **Key points for this month:**

- **The figures of the ECB's QE are more and more distorted by the redemptions/reinvestments and calculations are becoming less accurate.**
- **The share of German bonds in the PSPP hit a new low at 25.3% (but is still only just below Germany's theoretical weight). The Eurosystem is close to owning €450 bn of German securities.** The share of Irish securities has rebounded strongly.
- **The average maturity of German purchases in November fell back to 6.8 years (estimation).** The average maturity of purchases has been higher in France (10.6 years), Italy (8.3 years) and Spain (8.5 years).
- The PSPP redemptions will account for €104 bn in the 12 coming months. They will be particularly important in April (23 bn).
- The Eurosystem will pause APP purchases from 21 December to 29 December and. Purchases will resume on January 2.
- Banks' excess reserves hit €1.9 trn for the first time.
- **The Eurosystem's balance sheet account for 39% of GDP and is close to become the biggest in the world in dollar terms (more than €4.4trn).**

ECB asset purchase programme

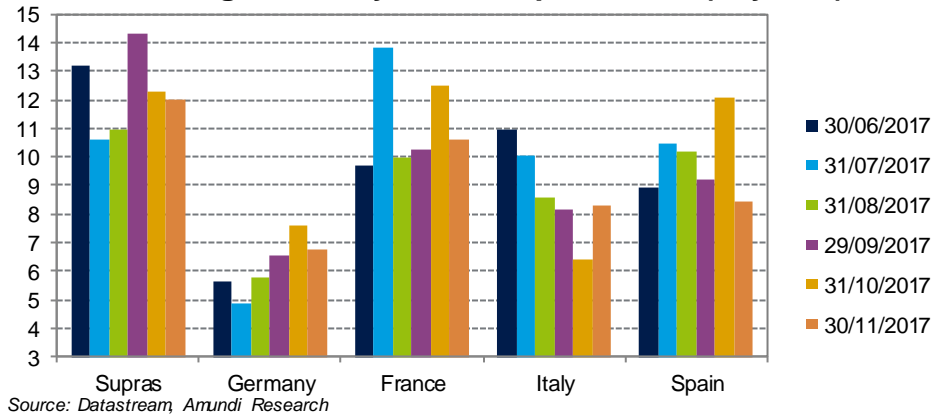
Stock of assets purchased under the expanded Asset Purchase Programme (APP) (01/12/2017)	
€186 bn	Third Covered Bond Purchase Programme (CBPP3)
€129.1 bn	Corporate Sector Purchase Programme (CSPP)
€21.8 bn	Asset-Backed Securities Purchase Programme (ABSPP)
€1852.9 bn	Public Sector Purchase Programme (PSPP)

> Assets bought under the PSPP

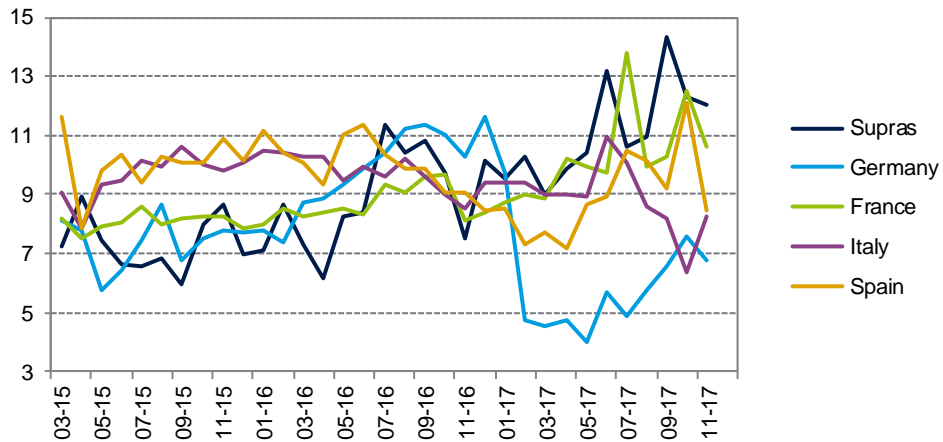
Assets bought under the PSPP (30 Nov. 2017)		
Country	Holdings (€bn)	Weighted average remaining maturity
Germany	448.7	6.7
France	366.5	7.8
Italy	318.8	8.2
Spain	224.3	8.3
The Netherlands	100.4	7.5
Belgium	63.8	10.0
Austria	50.7	9.1
Portugal	30.5	8.4
Finland	28.5	7.4
Ireland	24.6	9.3
Slovakia	10.6	8.4
Slovenia	6.7	10.3
Luxembourg	2.3	5.6
Latvia	1.7	7.7
Lithuania	2.8	6.8
Malta	1.0	11.5
Cyprus	0.2	4.3
Estonia	0.1	0.6
Supnationals	202.8	7.6
Total		7.8

> **Maturity of PSPP purchases**

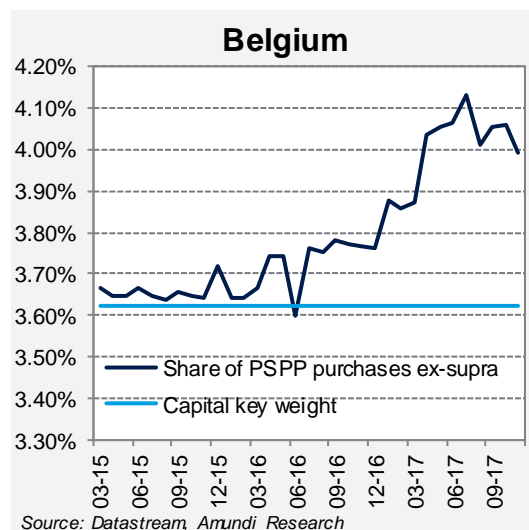
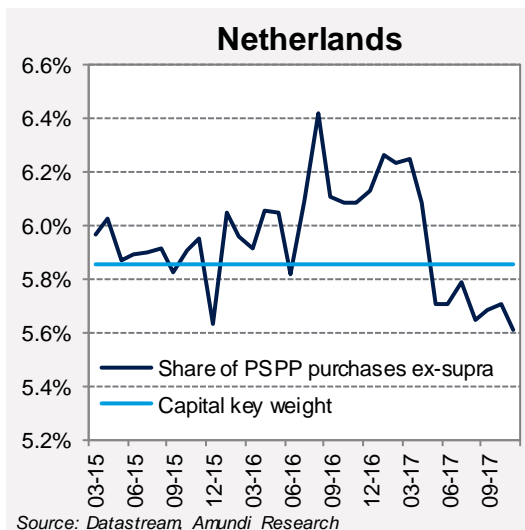
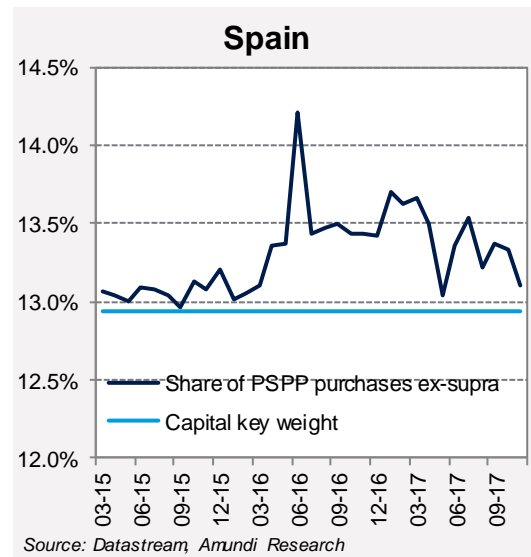
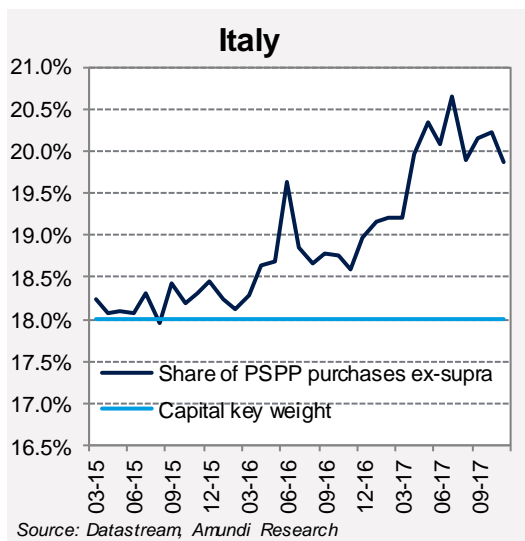
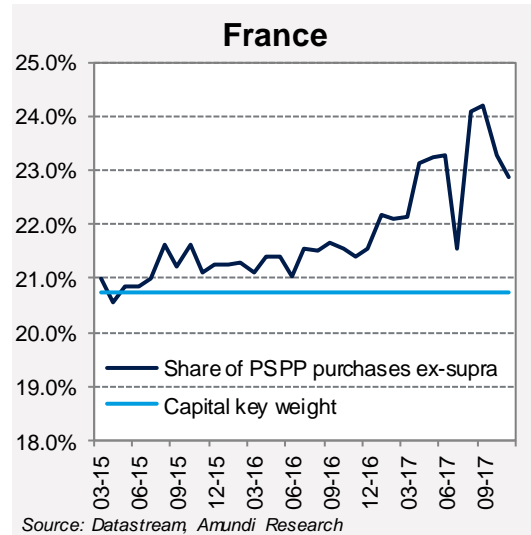
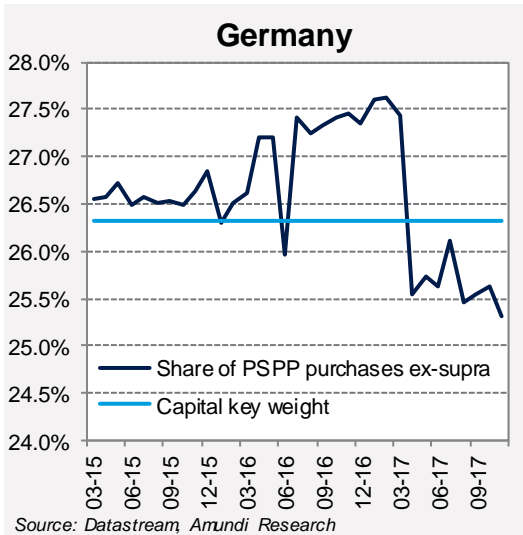
Average maturity of PSPP purchases (in years)



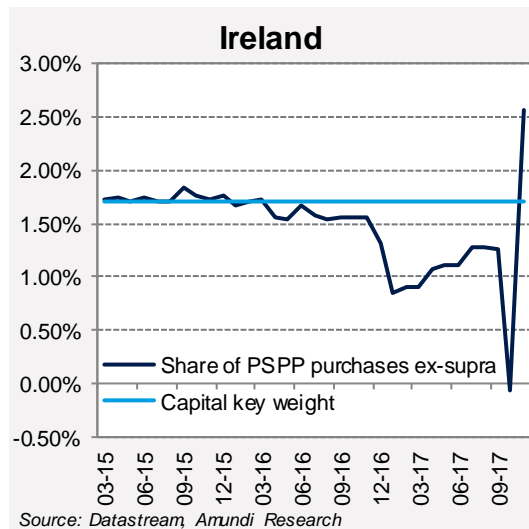
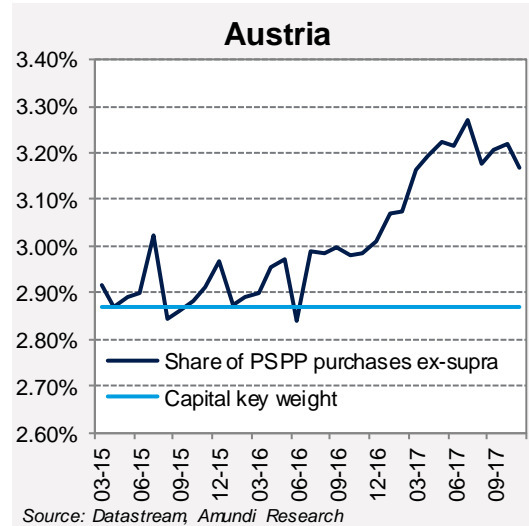
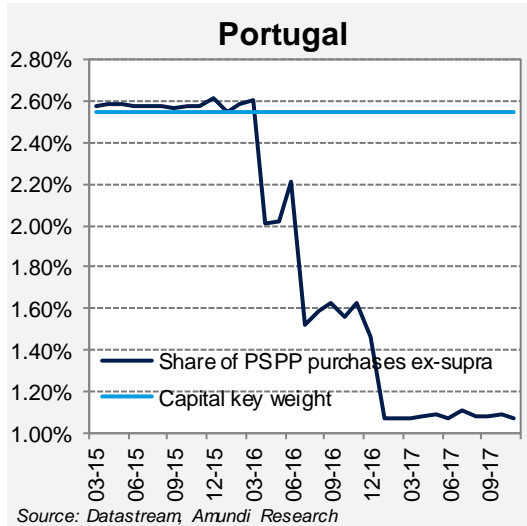
Average maturity of PSPP purchases (in years)



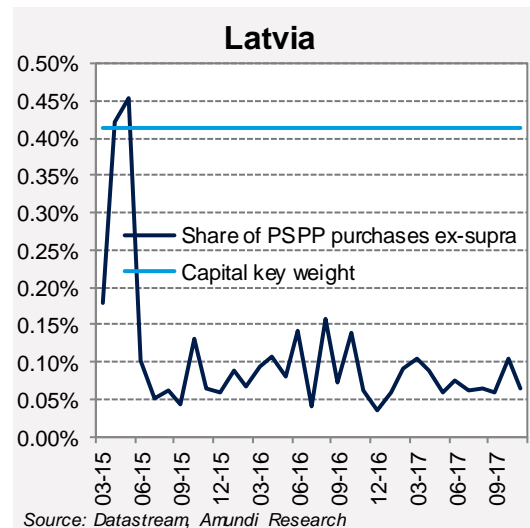
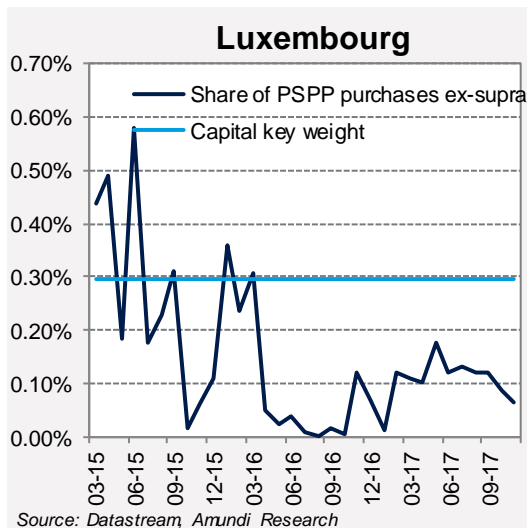
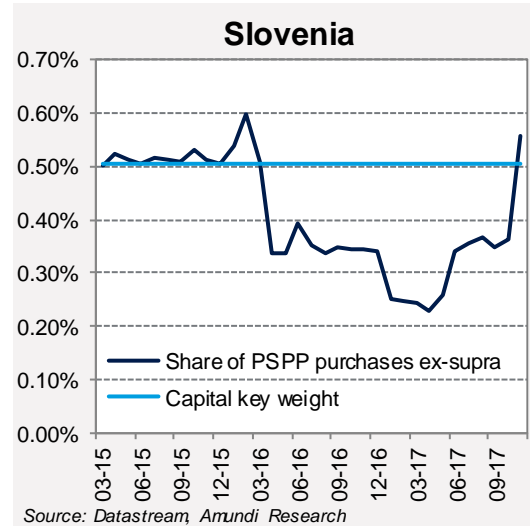
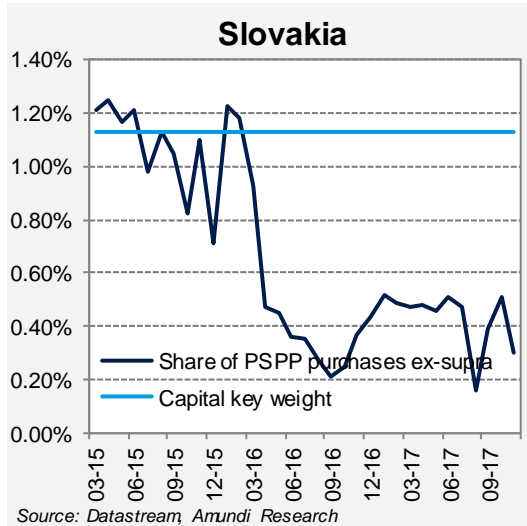
> **Breakdown of PSPP purchases by country (1/3)**



> Breakdown of PSPP purchases by country (2/3)

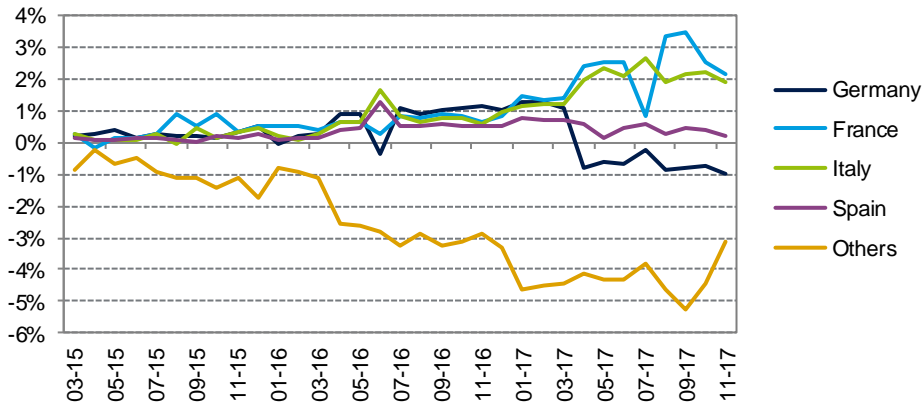


> Breakdown of PSPP purchases by country (3/3)



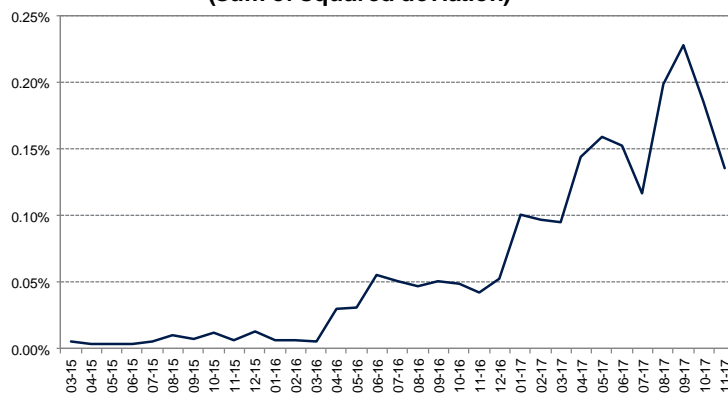
> **Deviation from the “capital key rule”**

**Deviation from the capital key rule
(as % of PSPP purchases ex-supra)**



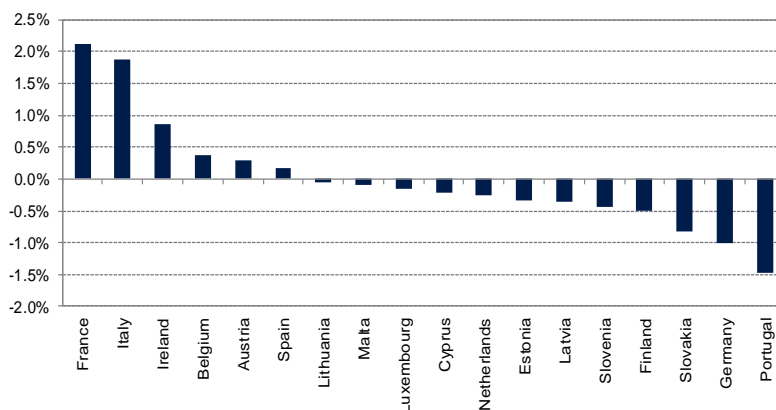
Source: Datastream, Amundi Research

**Deviation to the capital key rule
(sum of squared deviation)**



Source: Amundi Research

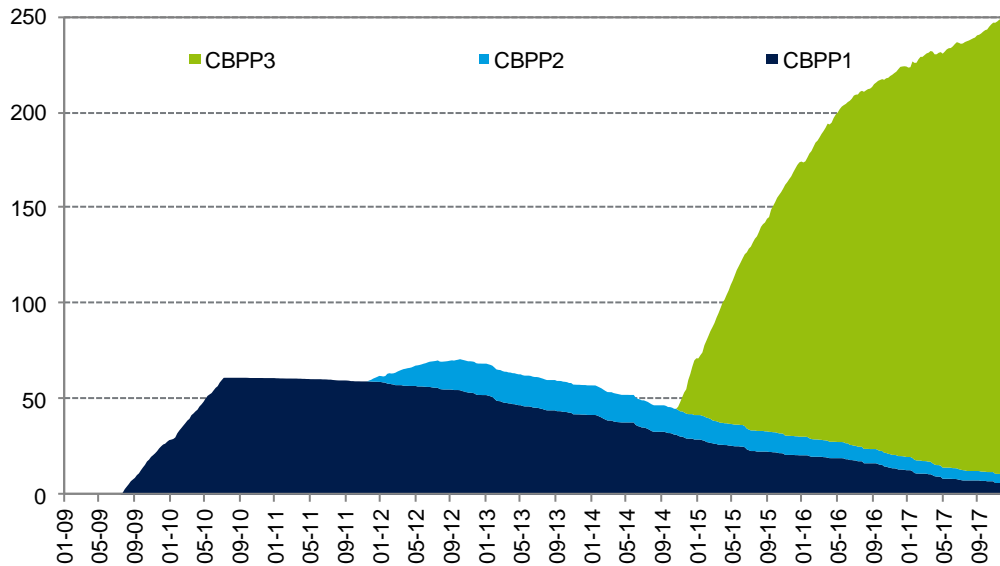
**Deviation from capital key rule in November 2017
(as % of total PSPP purchases ex-supra)**



Source: Datastream, Amundi Research

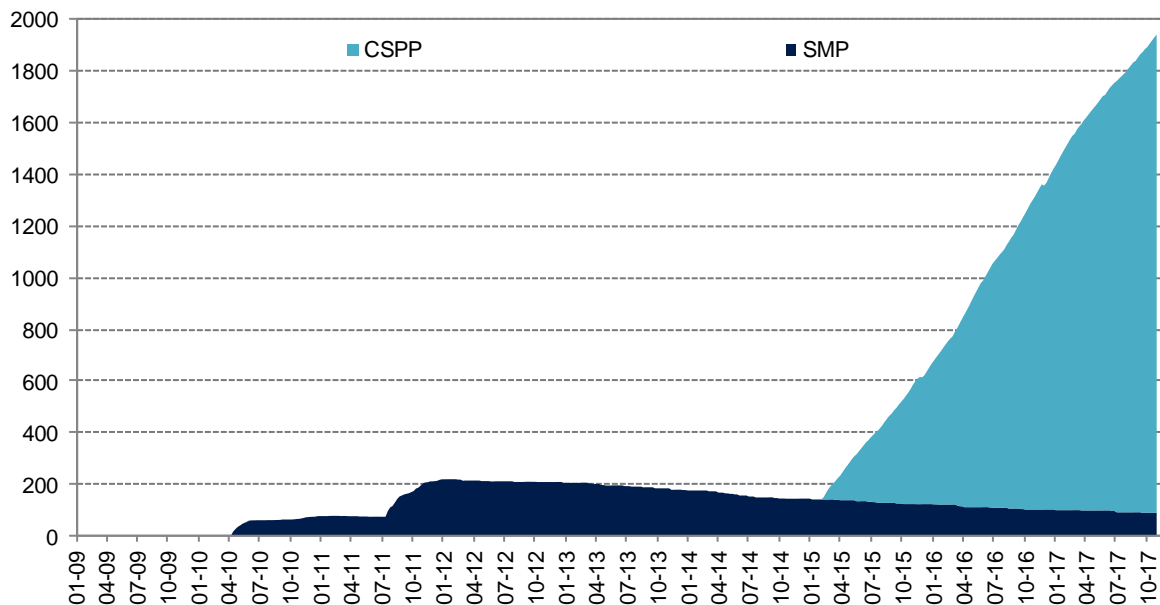
> Asset purchase programme: CBPP, SMP and PSPP (outstanding, € bn)

**Covered bonds purchased by the ECB
(outstanding €bn)**



Source: Datastream, Amundi Research

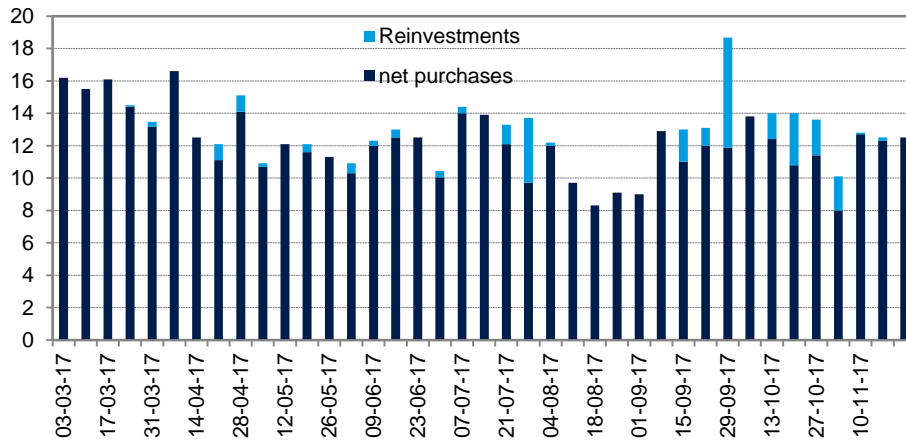
**Sovereign bonds purchased by the ECB
(outstanding €bn)**



Source: Datastream, Amundi Research

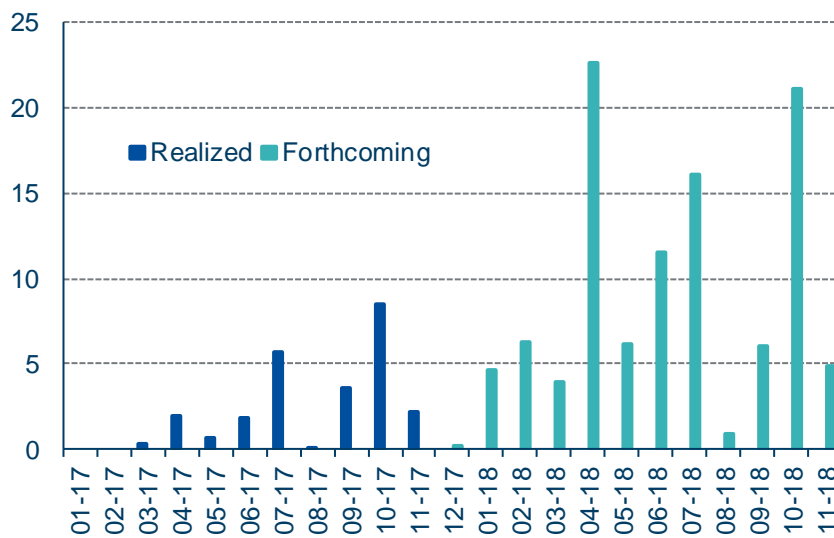
> Pace of PSPP purchases (weekly change of the stock, € bn) (1/2)

PSPP: weekly gross purchases (€bn)



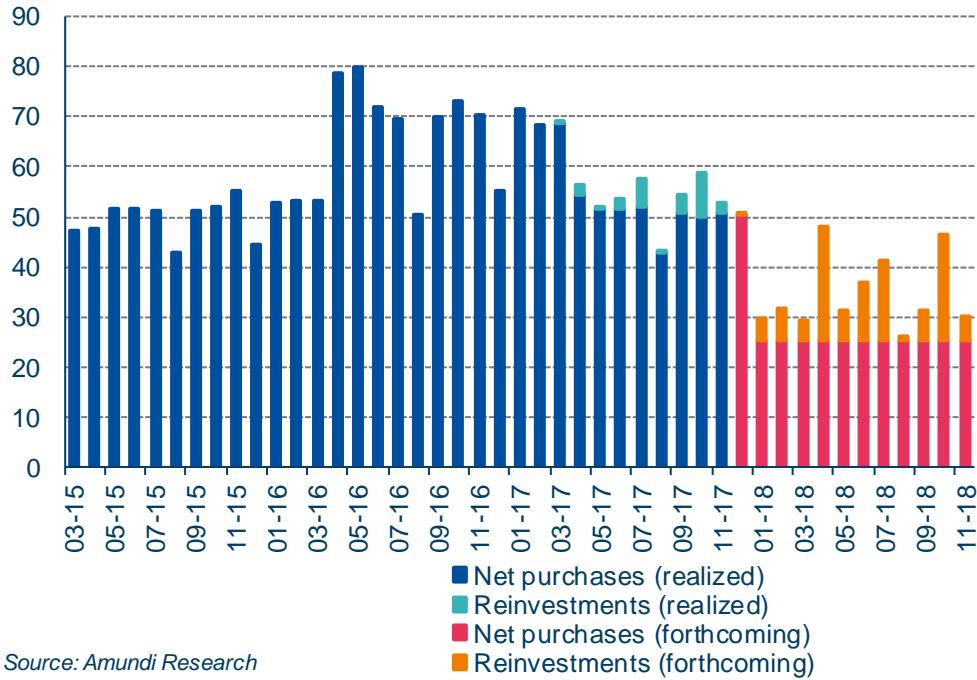
Source: Datastream, Amundi Research

PSPP redemptions (in €bn)

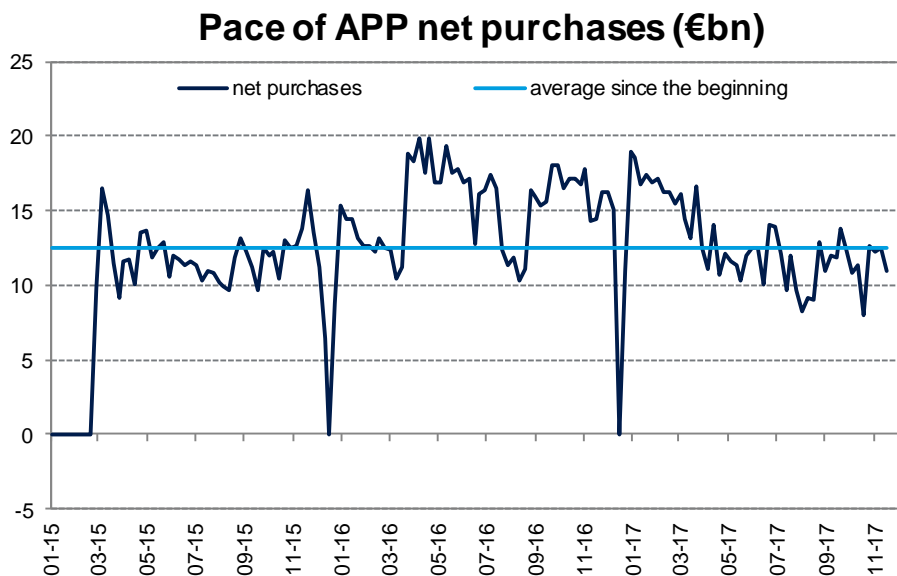


Source: Amundi Research

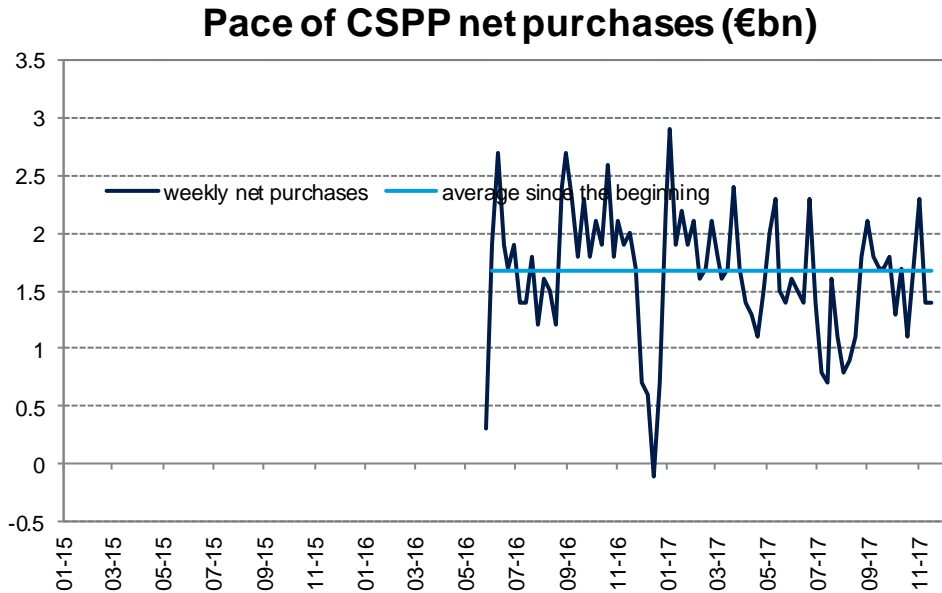
PSPP: monthly gross purchases (€bn)



> Pace of APP purchases (weekly change of the stock, € bn) (2/3)

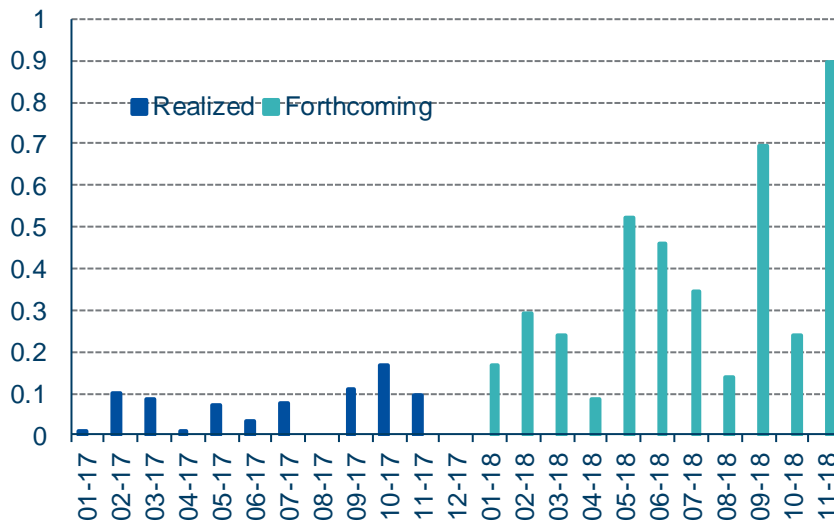


> Pace of CSPP purchases (weekly change of the stock, € bn) (3/3)



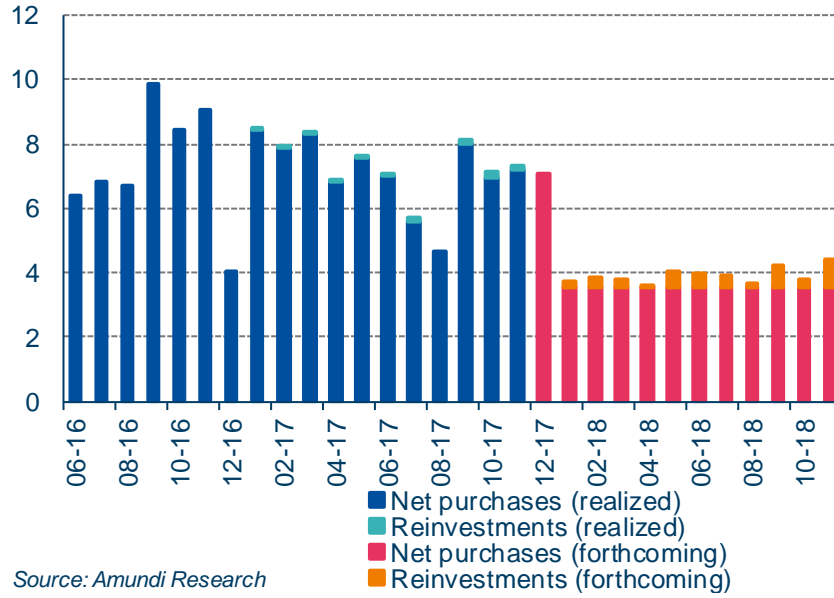
Source: Datastream, Amundi Research

CSPP redemptions (in €bn)



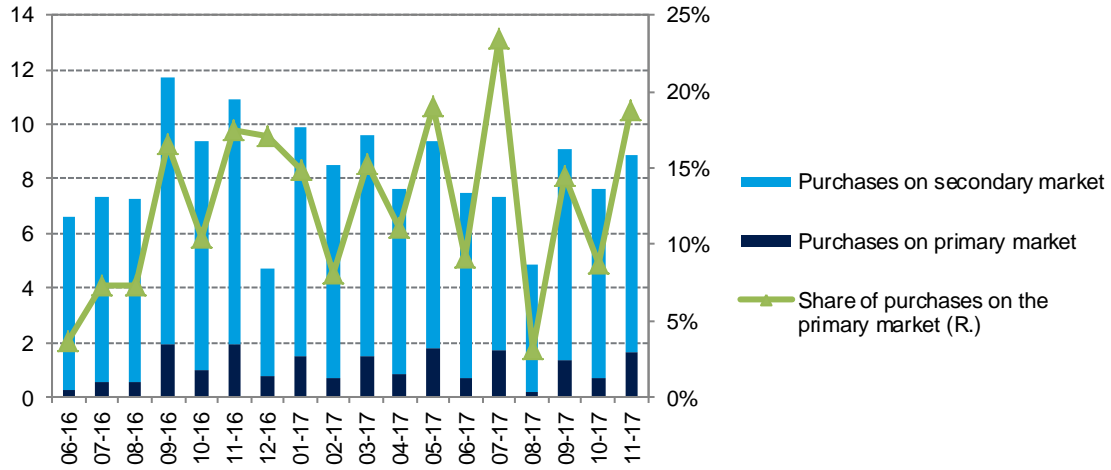
Source: Amundi Research

CSPP: monthly gross purchases (€bn)



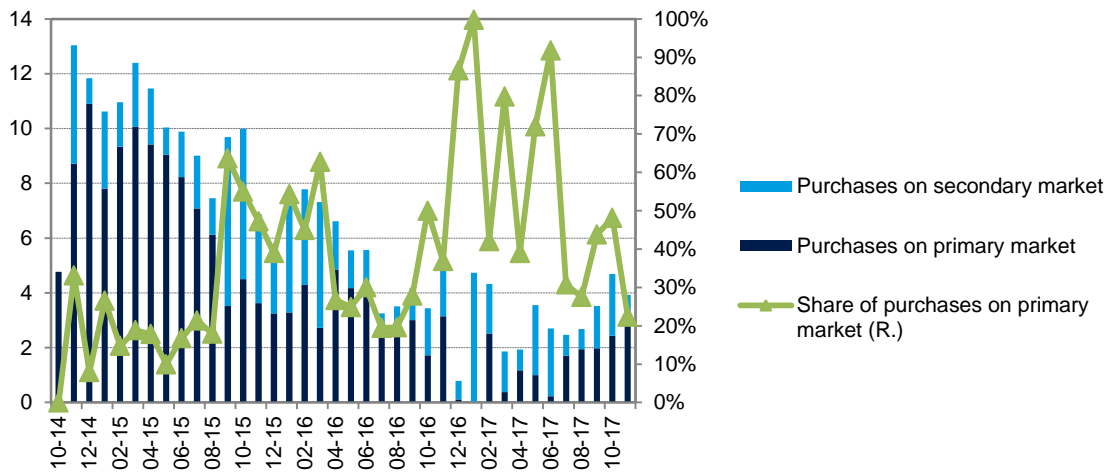
Source: Amundi Research

> Breakdown of CSPP monthly purchases (€bn)



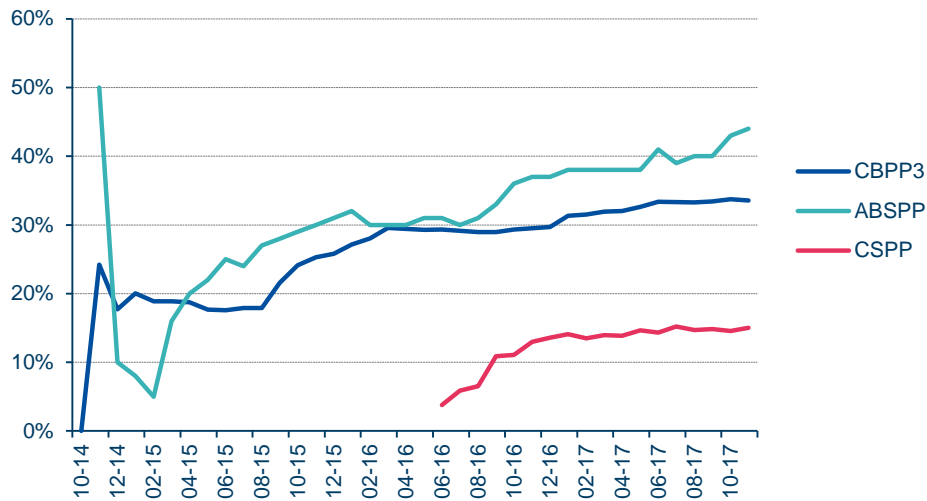
Source: Datastream, Amundi Research

> Breakdown of CBPP3 monthly purchases (€bn)



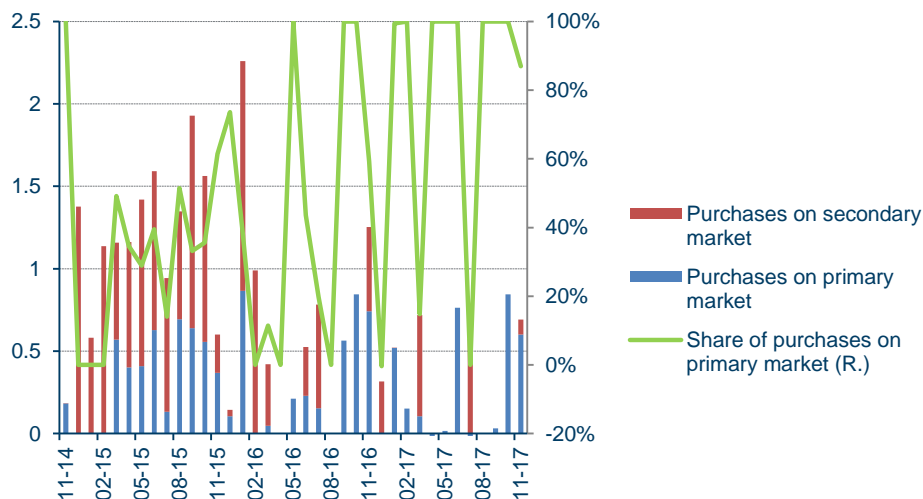
Source: Datastream, Amundi Research

> Share of purchases on the primary market as % of cumulated purchases



Source: Datastream, Amundi Research

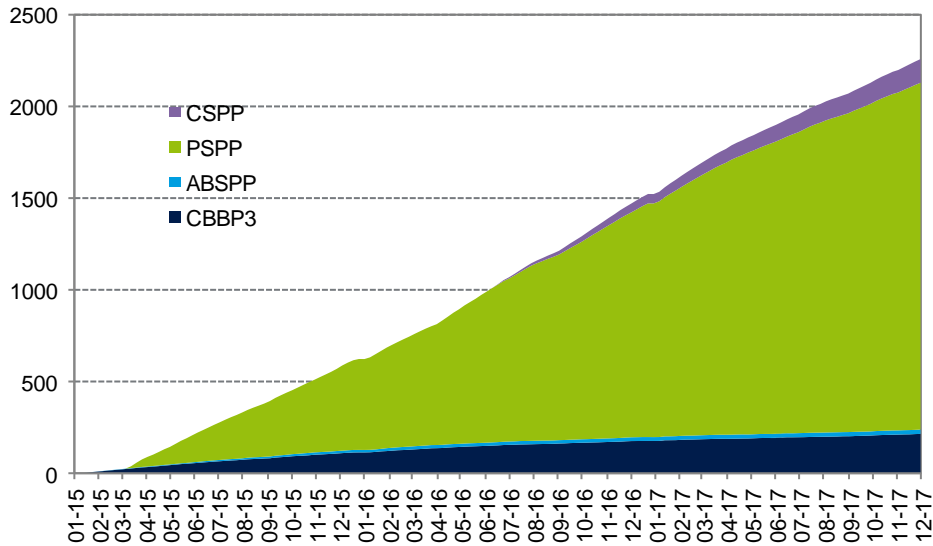
> Breakdown of ABSP monthly purchases (€bn)



Source: Datastream, Amundi Research

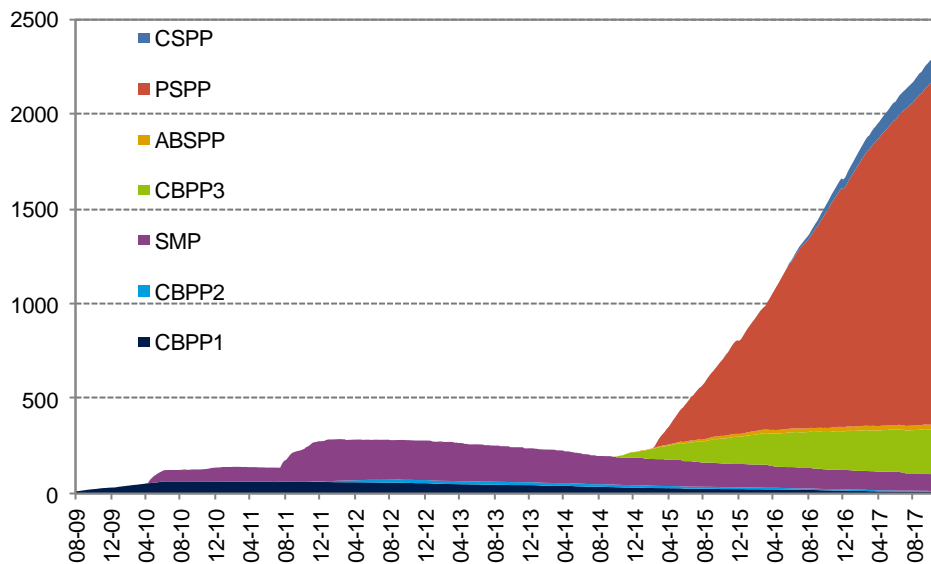
> **Eurosystem : Balance Sheet (1/2)**

Amounts purchased by the Eurosystem under the expanded asset purchase programme (€ bn)



Source: Datastream, Amundi Research

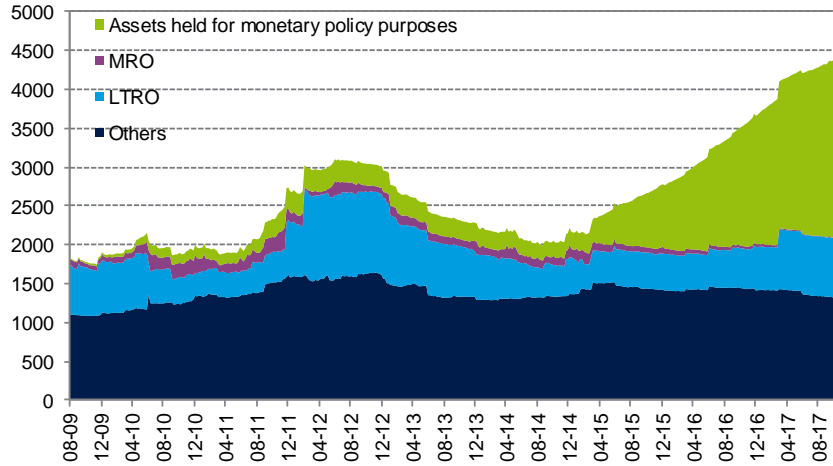
Assets held by the Eurosystem for monetary policy purposes (in €bn)



Source: Datastream, Amundi Research

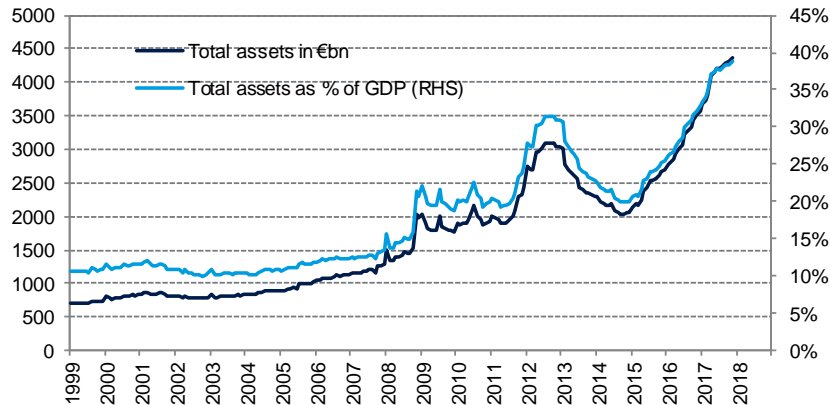
> Eurosystem : Balance Sheet (2/2)

Eurosystem: total assets (in €bn)



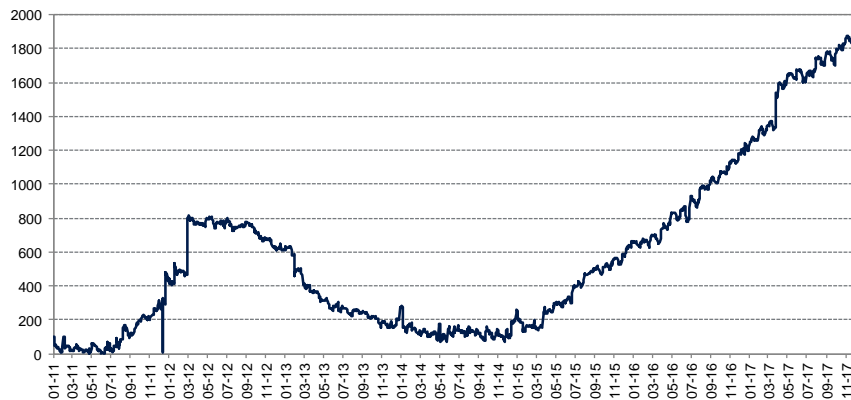
Source: Datastream, Amundi Research

Eurosystem: total assets



Source: Datastream, Amundi Research

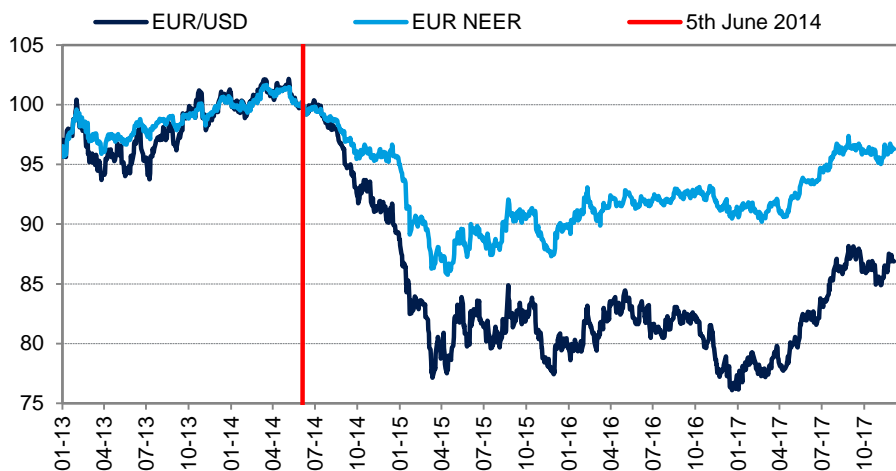
Eurosystem : excess reserves (€bn)



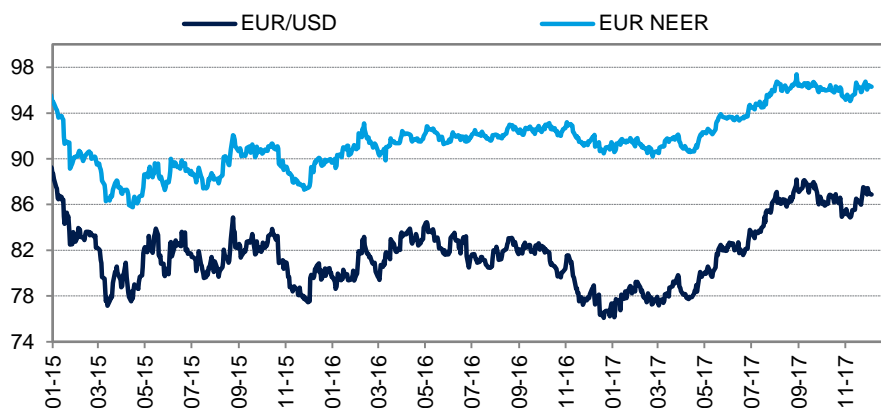
Source: Datastream, Amundi Research

FX channel

> Evolution of the euro (Effective exchange rate, 100 on 5th June 2014)



Source: Datastream, Amundi Research

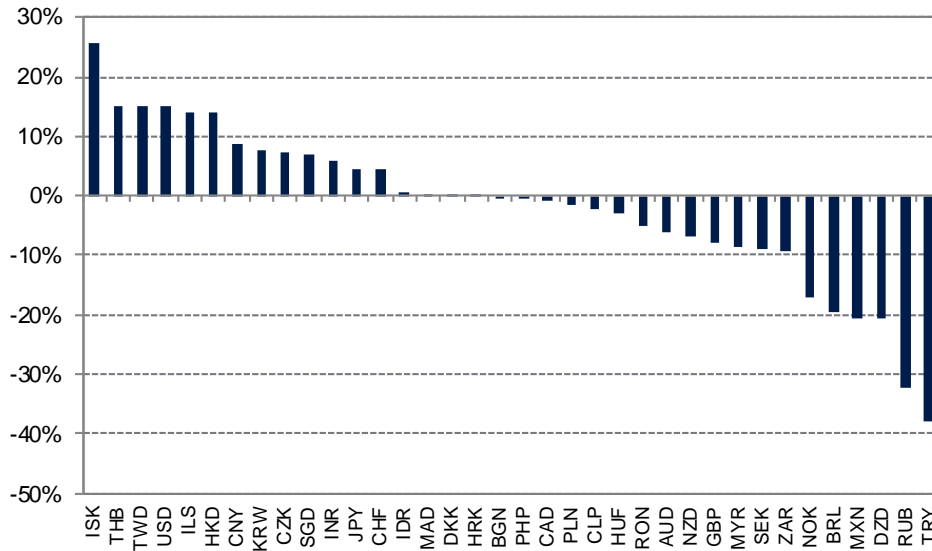


Source: Datastream, Amundi Research

> Evolution of the euro vs. ...
Since January 2nd, 2017

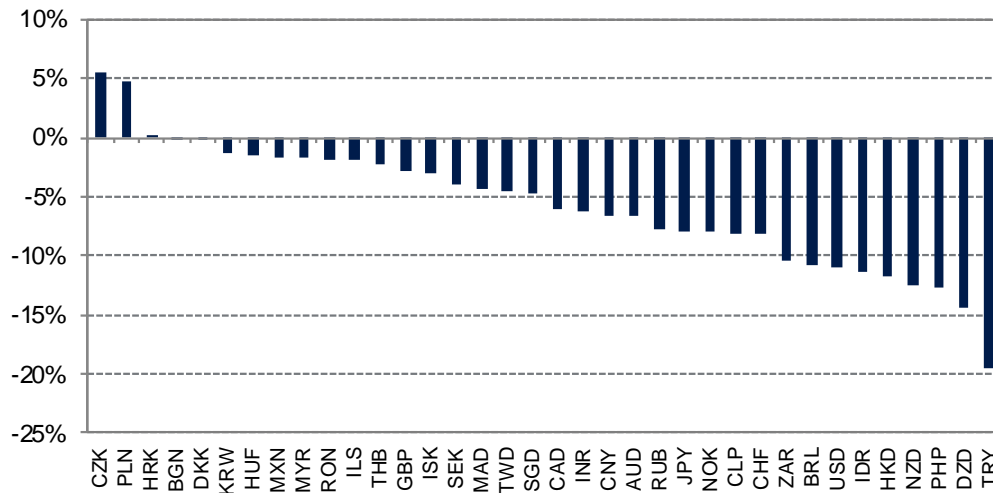
	Weight in effective euro	02/01/2017	05/12/2017	Variation
EUR/CNY	17.7	7.33	7.84	7.0%
EUR/USD	12.7	1.05	1.19	12.3%
EUR/GBP	10.3	0.85	0.88	3.0%
EUR/JPY	5.3	123.02	133.57	8.6%
EUR/CHF	5.5	1.07	1.17	8.9%
EUR/PLN	5.1	4.40	4.21	-4.5%
EUR/CZK	4.1	27.02	25.61	-5.2%
EUR/SEK	3.6	9.58	9.98	4.1%
EUR/KRW	3.2	1273.93	1290.17	1.3%
EUR/HUF	2.3	308.87	313.52	1.5%
EUR/DKK	1.7	7.44	7.44	0.1%
EUR/RON	1.7	4.54	4.63	1.9%
EUR/CAD	1.2	1.41	1.51	6.5%
EUR/HKD	1.4	8.18	9.26	13.3%
EUR/SGD	1.3	1.52	1.60	4.9%
EUR/NOK	1.0	9.08	9.87	8.7%
EUR/AUD	0.8	1.46	1.56	7.1%
EUR/HRK	0.4	7.56	7.56	0.0%
EUR/BGN	0.5	1.96	1.96	0.0%
EUR/RUB	3.5	64.39	69.78	8.4%
EUR/TRY	3.3	3.71	4.61	24.3%
EUR/IDR	2.4	14210.12	16028.31	12.8%
EUR/TWD	1.5	33.99	35.58	4.7%
EUR/BRL	1.4	3.43	3.85	12.2%
EUR/MXN	1.3	21.73	22.09	1.6%
EUR/THB	1.1	37.77	38.64	2.3%
EUR/MYR	1.0	4.73	4.81	1.7%
EUR/ZAR	1.0	14.42	16.10	11.6%
EUR/INR	0.7	71.59	76.31	6.6%
EUR/ILS	0.7	4.06	4.14	1.9%
EUR/MAD	0.6	10.68	11.17	4.6%
EUR/CLP	0.4	706.46	768.84	8.8%
EUR/DZD	0.4	116.44	136.16	16.9%
EUR/PHP	0.3	52.43	60.03	14.5%
EUR/ISK	0.1	119.14	122.80	3.1%
EUR/NZD	0.1	1.51	1.73	14.4%
Effective EUR	100.0	93.5	98.9	5.8%

Since June 5, 2014



Source: Datastream, Amundi Research

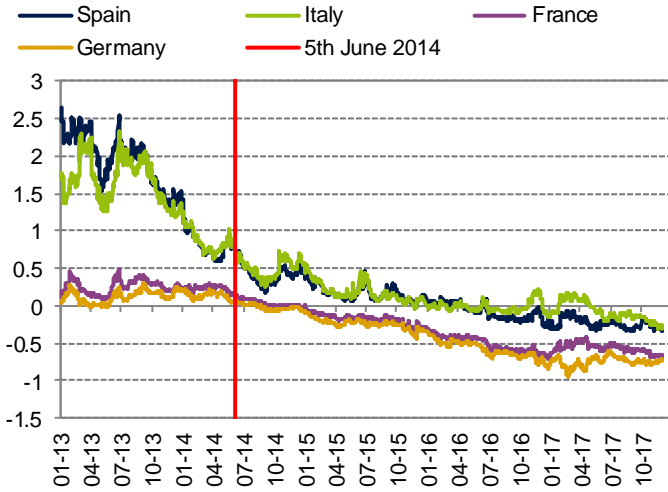
Since January 2nd, 2017



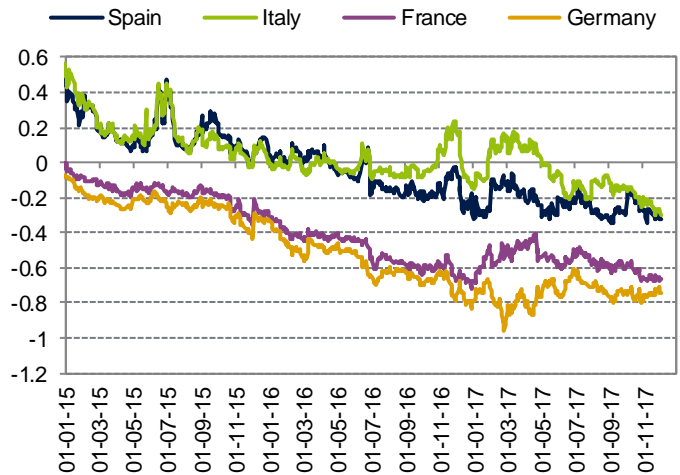
Source: Datastream, Amundi Research

Interest rate channel

> 2Yr sovereign bonds

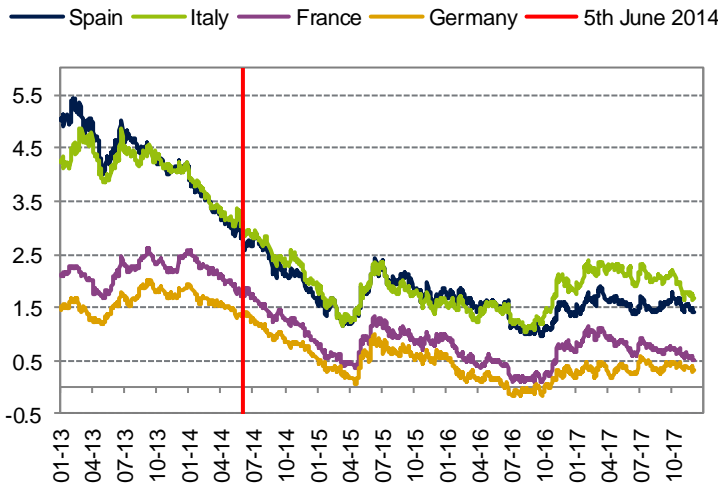


Source: Datastream, Amundi Research

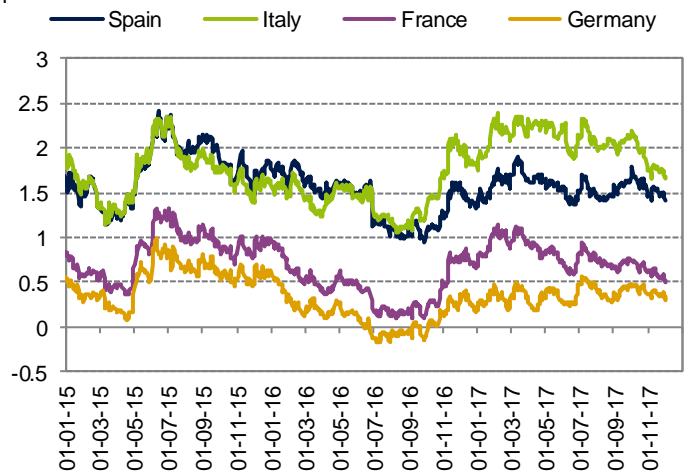


Source: Datastream, Amundi Research

> 10Yr sovereign bonds



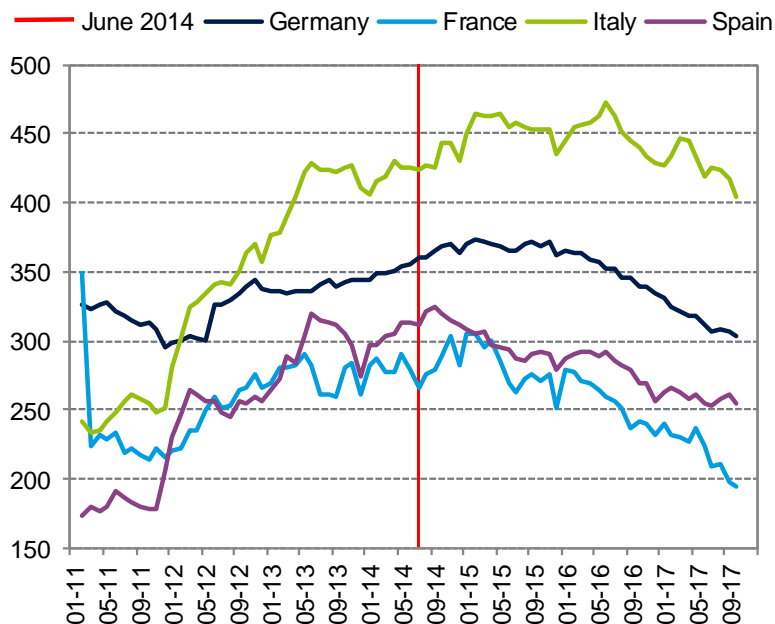
Source: Datastream, Amundi Research



Source: Datastream, Amundi Research

	2 year		10 year	
	05/06/2014	04/12/2017	05/06/2014	04/12/2017
Germany	0.05	-0.74	1.42	0.34
France	0.12	-0.67	1.80	0.52
Italy	0.67	-0.30	3.05	1.68
Spain	0.68	-0.32	2.83	1.41
Netherlands	0.14	-0.66	1.67	0.43
Belgium	0.14	-0.59	1.92	0.52
Ireland	/	/	2.57	0.55
Greece	/	/	6.22	5.26
Portugal	1.13	-0.27	3.64	1.89
Austria	0.14	-0.65	1.59	0.48

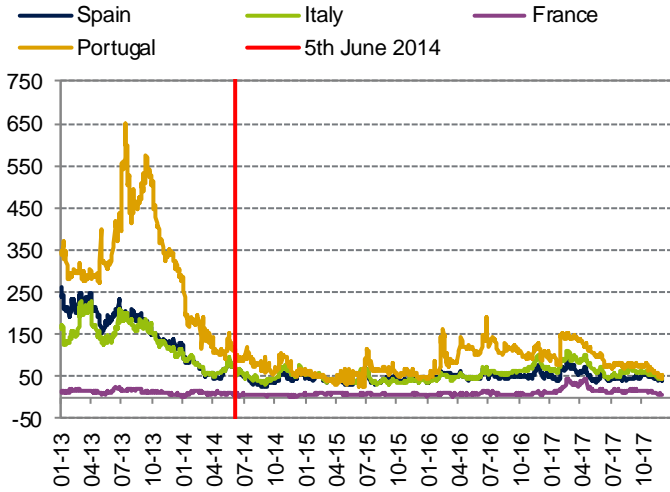
> Sovereign debt: banks holdings (€ bn)



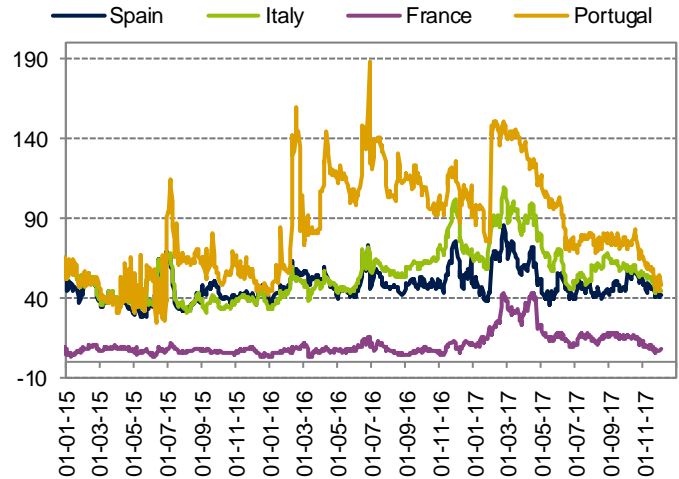
Source: Datastream, Amundi Research

Spreads channel

> 2Yr sovereign spreads

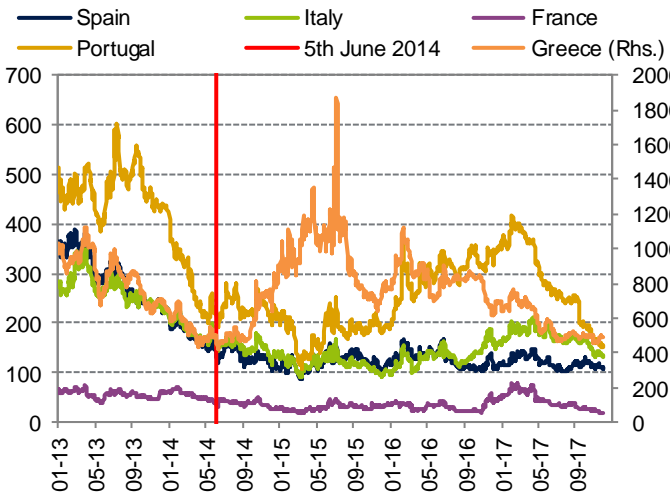


Source: Datastream, Amundi Research

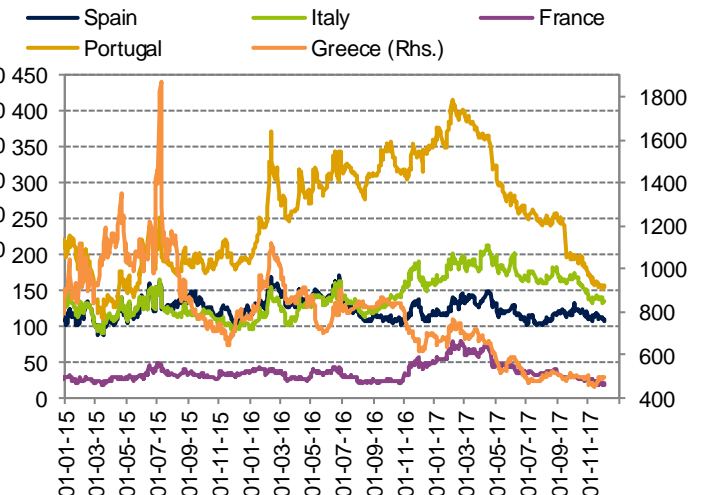


Source: Datastream, Amundi Research

> 10Yr sovereign spreads



Source: Datastream, Amundi Research

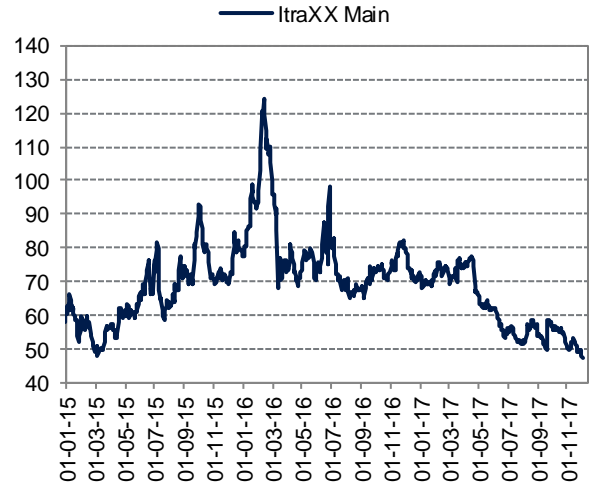


Source: Datastream, Amundi Research

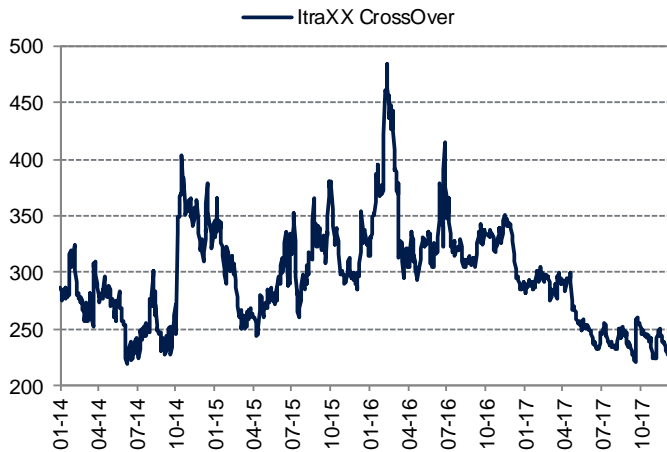
ItraXX Indices



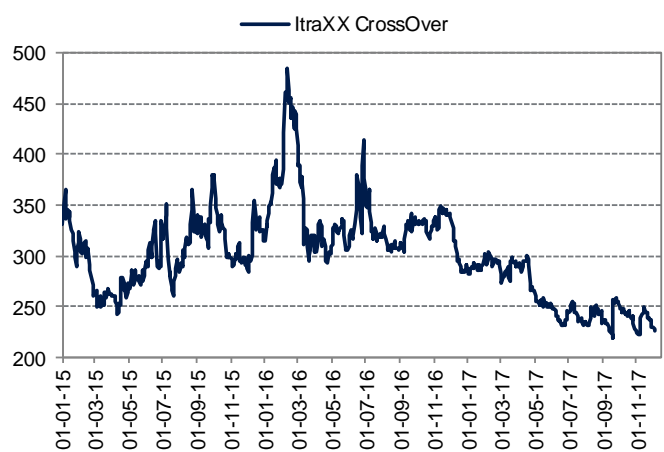
Source: Datastream, Amundi Research



Source: Datastream, Amundi Research



Source: Datastream, Amundi Research

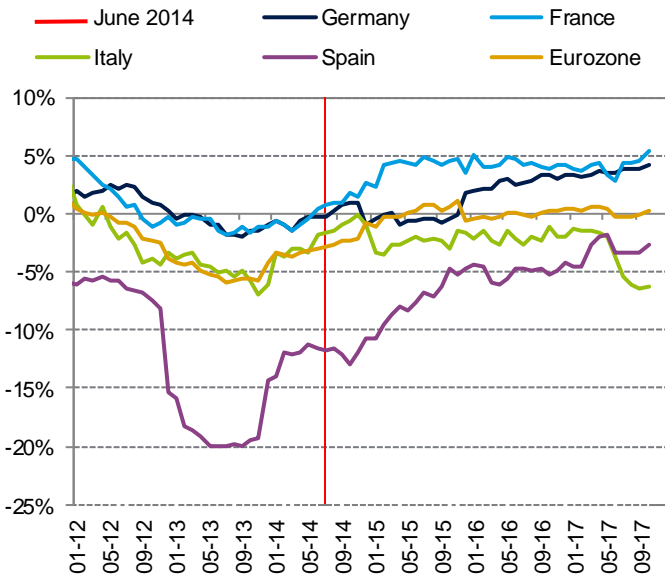


Source: Datastream, Amundi Research

Banking credit channel

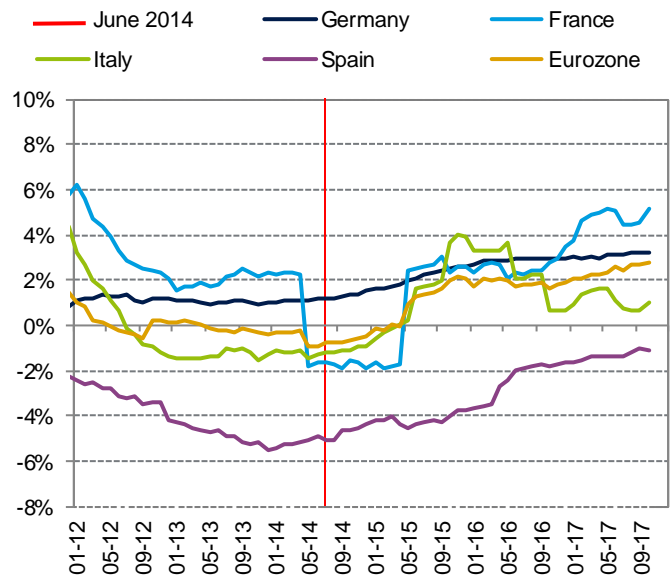
> Bank loans (YoY)

To non-financial corporations



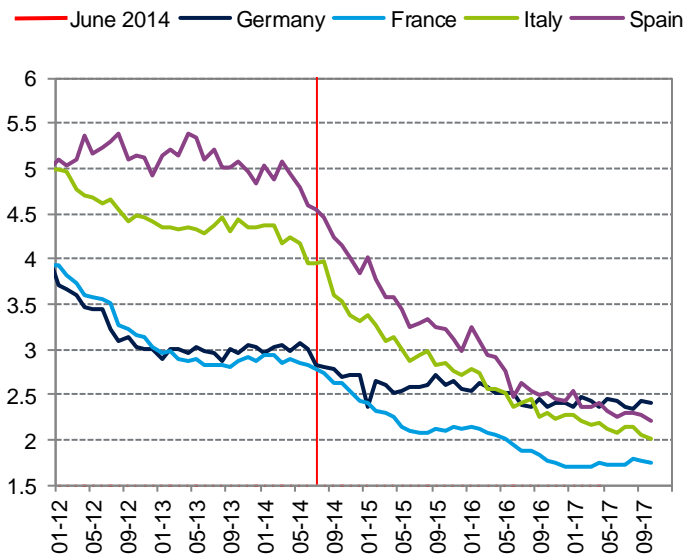
Source: Datastream, Amundi Research

To households



Source: Datastream, Amundi Research

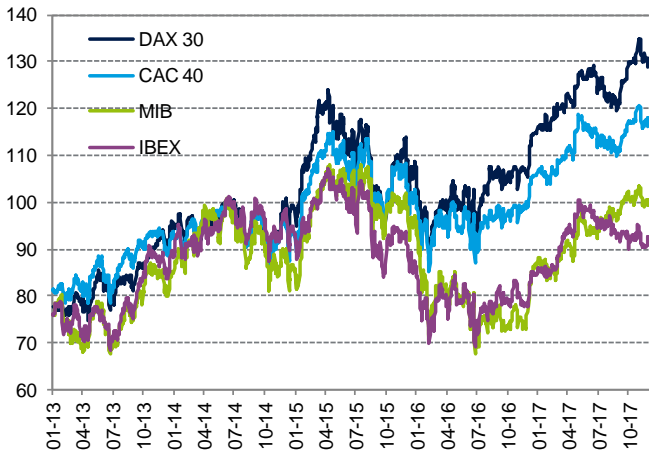
> Interest rates on new loans to SMEs (< € 1 million)



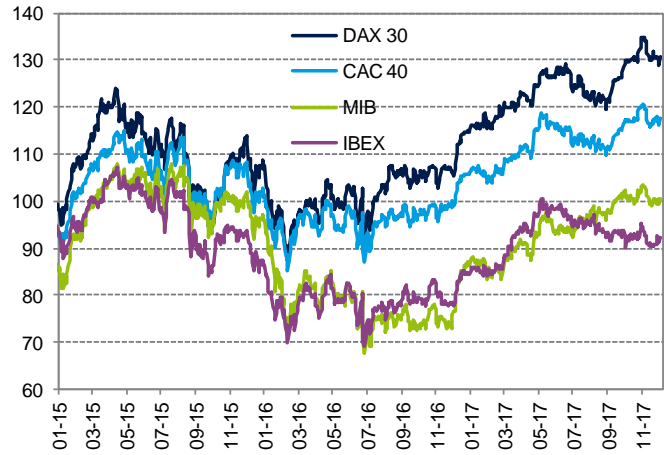
Source: Datastream, Amundi Research

Wealth effect channel

Equities



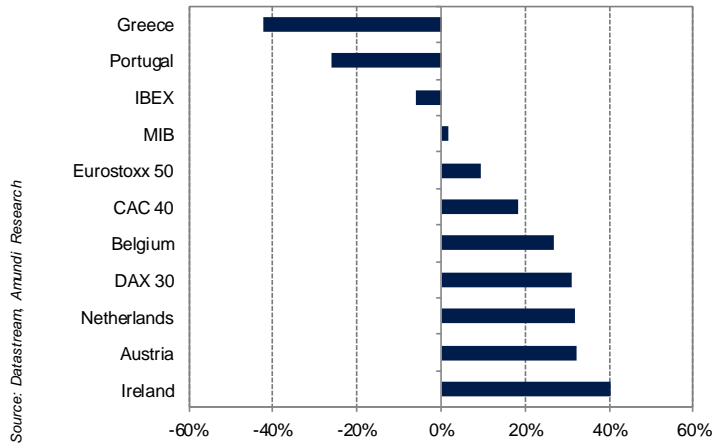
Source: Datastream, Amundi Research



Source: Datastream, Amundi Research

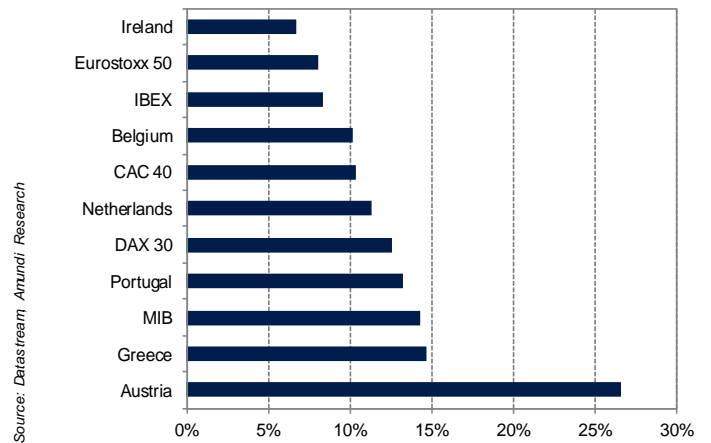
Performances

Since June 5, 2014



Source: Datastream, Amundi Research

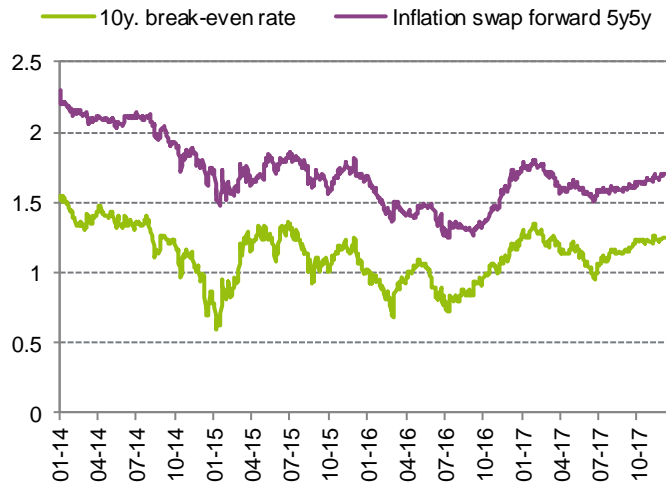
Since January 2nd, 2017



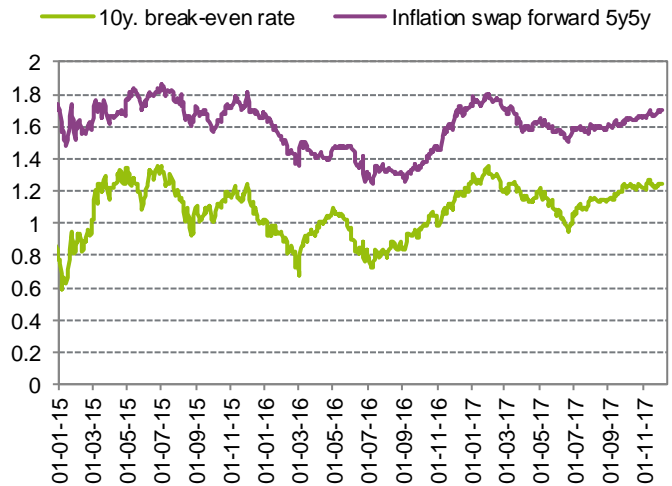
Source: Datastream, Amundi Research

Inflation expectations channel

> Inflation expectations in the Eurozone



Source: Datastream, Amundi Research



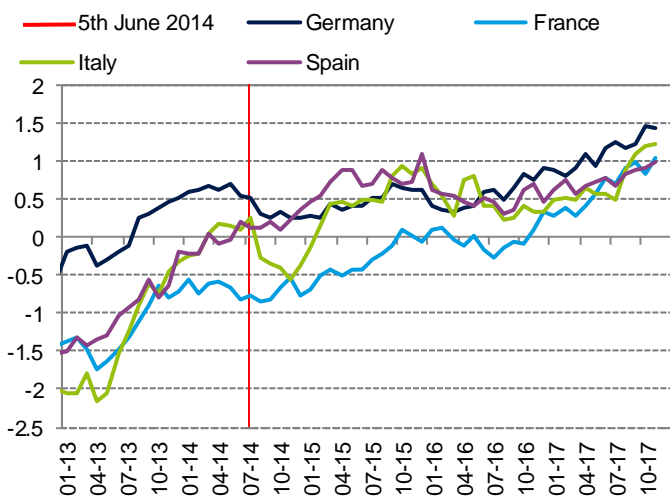
Source: Datastream, Amundi Research

Confidence channel

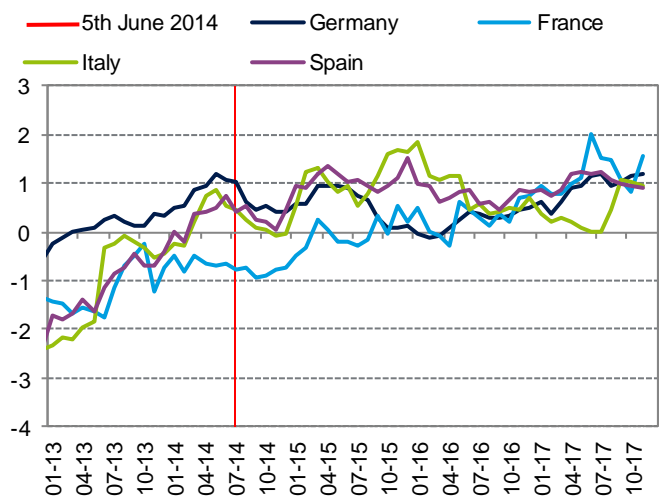
Business climate

Consumer confidence

z-score since 1998



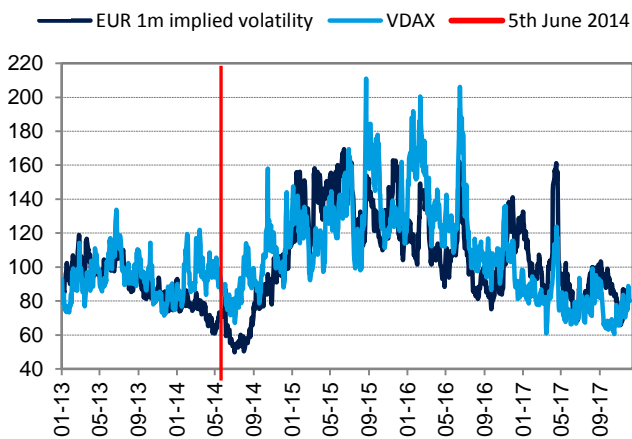
Source: Datastream, Amundi Research



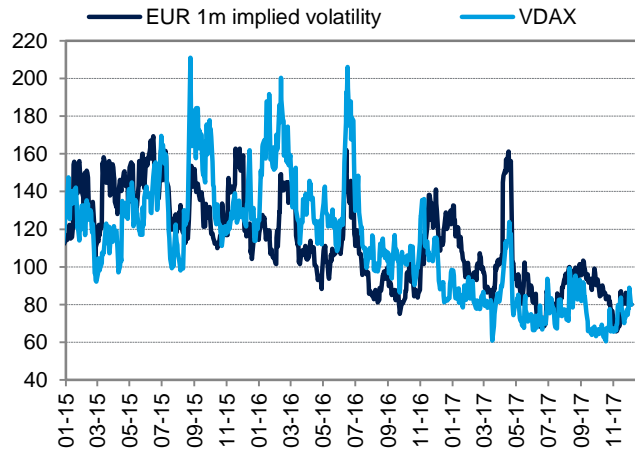
Source: Datastream, Amundi Research

Financial stress channel

Implied volatility

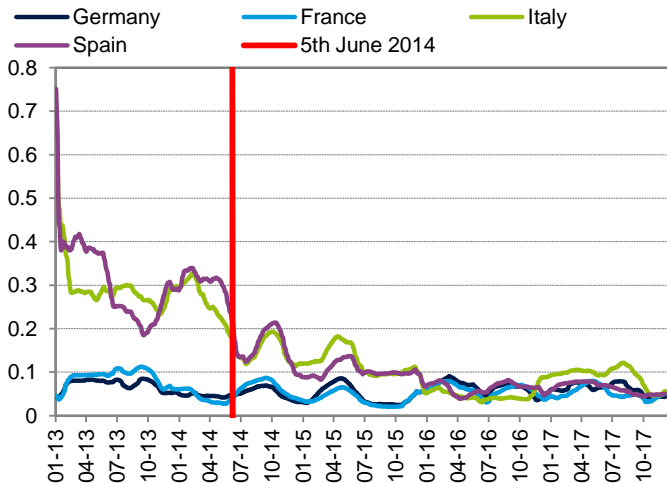


Source: Datastream, Amundi Research

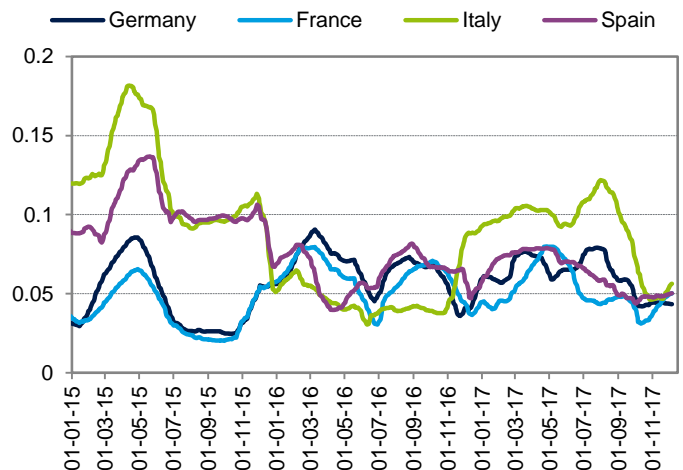


Source: Datastream, Amundi Research

Historical volatility (120 days) on 2Yr sovereign bonds yields

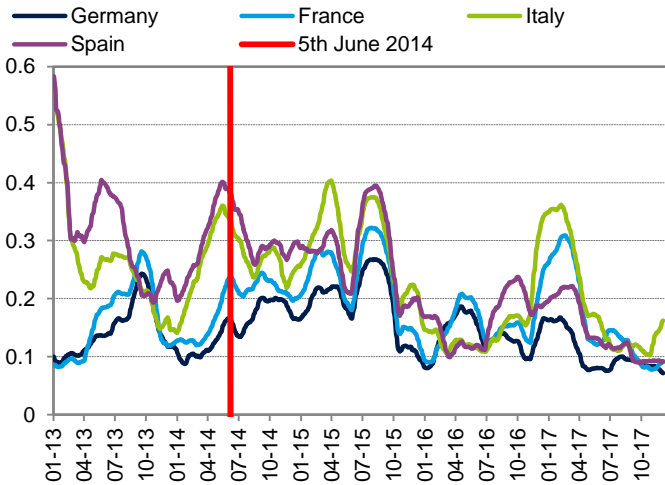


Source: Datastream, Amundi Research

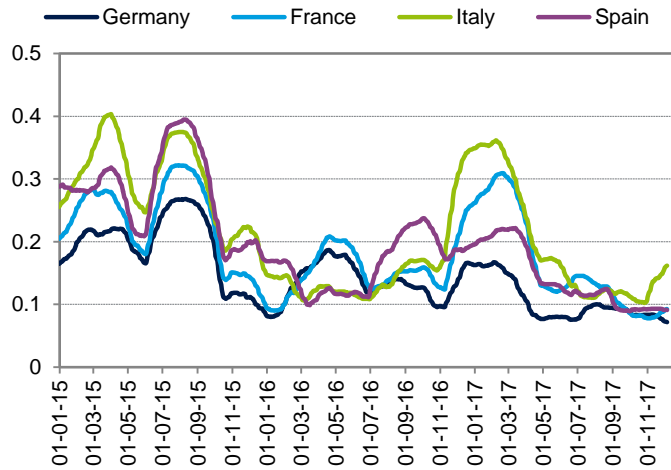


Source: Datastream, Amundi Research

> Historical volatility (120 days) on 10Yr sovereign bonds yields



Source: Datastream, Amundi Research



Source: Datastream, Amundi Research

Appendix

▶ Seven important dates to have in mind

- June 5, 2014: Mario Draghi announces the ECB wants to expand its balance sheet to the 2012 level. Negative deposit rates and the launch of a TLTRO programme are also announced.
- January 22, 2015: the ECB decides to launch an expanded asset purchase program (sovereign QE).
- March 9, 2015: the expanded APP turns effective. The ECB starts buying sovereign bonds.
- December 3, 2015: the ECB announces that the QE is extended until March 2017 and that the PSPP is extended to local and regional governments' debt securities. Maturing assets held by the Eurosystem will be reinvested "as long as necessary". The deposit rate is cut to -0.30%.
- March 10, 2016: the ECB increases the monthly purchases from €60 to 80 bn (the termination date becomes March 2017). The expanded APP is extended to corporate bonds issued by investment grade non-financial corporations (CSPP). The deposit rate is cut to -0.40%.
- December 8, 2016: the ECB announces it extends the QE until the end of December 2017 but at a monthly pace of €60bn from April to December. The ECB announces it would increase the programme in terms of size and/or duration "if financial conditions become inconsistent with further progress towards a sustained adjustment of the path of inflation. The maturity range for the PSPP is enlarged (from 1 to 31 years) and purchases with a yield to maturity below the deposit rate will be permitted.
- October 26 2017: the ECB announces it extends the QE until the end of September 2018 but at a monthly pace of €30bn from January to September 2018.

- > **Implementation** seems like a simple matter, at least in principle. The ECB will nonetheless be faced with the challenge of purchasing €60 bn in securities each month in illiquid markets that are short of willing sellers. QE encourages market players to buy or hold on to assets rather than selling them. Meanwhile, the banks, which are major holders of government debt, retain these assets in portfolios for regulatory purposes or simply out of liquidity considerations, as the securities can be used as collateral. Given this backdrop, unless there is an explosion in issuance by governments, a rapid change in regulators' policy or "forced" sales by public funds (is this not what Japan demanded of public pension funds?), the ECB's drive to establish this program will inevitably run into the realities of the market, which will undoubtedly push down short and long-term interest rates even further.
- > We have already alluded to the importance of transmitting QE to the real economy. Several transmission channels will have to be activated in order for growth to be revived:

 - An **"exchange rate effect"**: any currency depreciation would contribute to competitiveness and/or help restore business margins and/or lead to natural profit growth;
 - An **"interest rate effect"**: any additional drop in interest rates would improve the creditworthiness of indebted entities and offer (potential) support to bank lending;
 - A **"banking credit effect"**;
 - A **"spread effect"**: the same impact as lower interest rates;
 - A **"wealth effect"**: growth in the equity and real estate markets would elevate the wealth of market players, both consumers and investors;
 - An **"inflation anticipation effect"**: the ECB's intention is to stop the deflationary spiral, as lower prices mean lower consumption;
 - A **"confidence effect"**: without confidence, it will be difficult for growth to take off.
- > **Lexicon :**

 - **PSPP** : Public Sector Purchase Programme;
 - **APP** : Asset Purchase Programme;
 - **CSPP** : Corporate Sector Purchase Programme;
 - **CBPP** : Covered Bond Purchase Programme;
 - **SMP** : Security Market Programme;
 - **ABSPP** : Asset Back-Backed Securities Purchase Programme.

QE MONITOR

Research, Strategy and Analysis

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