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PSPP – Investor Perspective

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June 2015

FOR PROFESSIONAL CLIENTS / QUALIFIED INVESTORS ONLY - ISGPS-0430

What does PSPP mean for net issuance?

Net issuance in Europe turns negative on ECB buying



European	fixed income	issuance -	- net of ECB	purchases
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	Actual	Actual	Actual	Actual	Est.	Est.	Est.	Est.	Est.	Est.	Est.	Est.	Total	Net supply - QE /	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Gross (May-Dec)	
Austria	1.1	1.1	-0.1	-0.1	2.9	-1.2	-13.4	-0.3	2.9	-0.3	-0.3	-0.5	-8	-82%	
Belgium	5.0	4.0	-10.0	1.3	0.8	2.0	1.3	-1.5	-9.0	1.2	1.0	-1.5	-5	-33%	
Finland	0.0	1.0	2.2	-0.8	0.4	-0.8	-5.8	2.4	0.1	0.0	-0.8	-0.8	-3	-87%	
France	8.4	19.9	14.5	-9.6	10.7	13.7	-23.2	-8.1	13.4	-20.4	-5.0	-4.1	10	-19%	
Germany	-5.0	-3.0	-13.1	-11.1	0.9	-12.1	-15.1	4.9	-8.1	-10.1	2.9	-18.1	-87	-56%	
Ireland	4.0	2.4	0.3	-0.7	-0.2	-0.7	-0.4	-0.8	-0.7	-0.1	1.7	-0.7	4	-49%	
Italy	38.1	4.5	8.1	3.4	17.2	-19.8	-6.7	-21.4	1.2	10.1	-12.6	-44.4	-22	-59%	
Netherlands	-5.8	2.6	7.3	-11.9	3.1	2.4	-13.4	-2.5	5.0	0.4	1.5	-2.5	-14	-22%	
Portugal	5.5	3.0	-1.1	1.4	-1.1	-0.5	0.7	-1.1	0.8	-6.1	-0.4	-1.1	0	-157%	
Spain	-1.4	15.9	-3.4	-14.7	10.4	9.6	-13.8	-1.2	4.4	-6.5	3.5	1.6	4	10%	
Total	49.9	51.4	4.7	-42.8	45.1	-7.4	-89.8	-29.6	10.0	-31.8	-8.5	-72.1	-121	-36%	

Source: Morgan Stanley, Credit Suisse, JPM, BNP Paribas estimates as at May 2015

ECB QE displacement effect

Sub-1% yields across all IG asset classes in Europe

- The ECB's expanded asset purchases started on 9 March 2015, extending an already year long yield (and risk assets) rally
- ECB's €840bn of purchases is 2.8x the net issuance projected for affected markets compared to 0.5x average of the three US QE programs
- This combination of the yield rally in program assets and reallocation from already negatively yielding core government bonds is likely to further supress spreads and volatility across markets
- IG corporates are the next logical step for domestic investors moving away from affected markets
- International holders of euro assets will likely be large net sellers into the ECB buying, thus spreading the QE effect to other markets

The ECB to displace €840bn of bondholders

	Net issuance forecast	ECB purchases	Difference		
Government	290	-850	-560		
Govt related	20	-90	-70		
Covered Bonds	-60	-100	-160		
ABS	50	-100	-50		
Total	300	-1,140	-840		

Sub-1% yields across all IG asset classes in Europe



Source: Barclays, BlackRock as at March 2015

April-May sell off in perspective

April-May sell off

- The almost linear selloff in bunds in late April and Early May was masking intra-day volatility amidst low liquidity conditions
- Rise in open interest indicates new long and short positions initially driven by momentum accounts and later joined by real money longs
- However, bearish technical indicators are stabilising or have already turned
- Market could stabilise at this level of yields as long as we don't see the secondary selling flow
- Main indicators to watch are mutual fund/ ETF flows and VAR-driven investment behaviour





Source: Bloomberg, BlackRock as at May 2015

Was there liquidity in bund future during the sell off? Well not really...



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Flows

Are flows turning? Short answer - YES



Source: JP Morgan, FINRA Trace, Blackrock as at May 2015

Market liquidity

Liquidity? Deteriorated...

> Depth and liquidity of Eurozone government bond markets visibly decreased



Market Axess XM2M YTD median 10Y bid-ask spreads for Eurozone Sovereigns

Liquidity? Deteriorated...

Turnover peaked around PSPP announcement and markedly decreased since



Market turnover based on TradeWeb data and estimated market share

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...but not only in Europe

- > Turnover and depth of developed fixed income markets have been low by historic standards
- Same is evident in average trade sizes which exacerbates directional moves



US Corporates market turnover

Average trade size in US market

000s of US\$. Average trade size is equal to trading volume in \$ divided by the number of trades.



Market depth in 10y Treasuries

5-day average of tightest three bids and asks each day, measured in \$mn for 10y US Treasuries



Source: JP Morgan, FINRA Trace as at May 2015

Are dealers really unable to take inventory?



Source: Blackrock as at May 2015

Buyers strike?

Excessive policy has created a scramble for the very scarce yield opportunities within a distorted interest-rate environment... And corporate issuers are filling some of this void by putting a tremendous amount of "expensive" duration into the market...

When you consider the available components of the global Agg, including spread asset classes, only about 19% of the market gives you greater than a 2.50% yield... Either you take duration risk to get there or more volatile EM (credit-quality) risk...*

	Yield to Worst							Market Value %						
Country	Total	1 - 3 yrs	3 - 5 yrs	5 - 7 yrs	7 - 10 yrs	10 - 20 yrs	> 20 yrs	Total	1 - 3 yrs	3 - 5 yrs	5 - 7 yrs	7 - 10 yrs	10 - 20 yrs	> 20 yrs
United States	2.21	0.85	1.85	2.41	2.86	3.52	3.94	37.79	8.76	8.63	7.38	7.7	8 1.25	3.99
Australia	2.33	1.77	2.07	2.46	2.75	3.00	4.04	1.67	0.45	0.41	0.26	0.3	6 0.16	0.04
France	0.80	0.15	0.35	0.68	1.09	1.39	2.00	5.94	1.21	1.16	1.03	1.1	0 1.02	0.43
Germany	0.60	0.19	0.38	0.61	0.84	1.32	1.35	5.40	1.58	1.17	0.77	0.9	3 0.53	0.42
Italy	1.29	0.25	0.63	1.12	1.69	2.26	2.87	4.15	0.88	0.83	0.61	0.7	3 0.77	0.33
Spain	1.11	0.27	0.62	1.00	1.57	2.08	2.76	2.69	0.70	0.61	0.33	0.4	6 0.39	0.20
United Kingdom	2.01	0.83	1.37	1.73	2.30	2.60	2.73	6.44	0.98	0.99	0.94	0.7	8 1.07	1.67
Russia	9.61	9.57	10.05	8.79	9.54	10.20		0.11	0.04	0.02	0.01	0.0	2 0.01	0.00
Japan	0.44	0.07	0.13	0.21	0.39	0.83	1.38	15.92	3.64	3.06	1.67	2.6	6 3.37	1.53
S.Korea	2.13	1.78	2.02	2.15	2.48	2.62	2.83	1.45	0.55	0.27	0.14	0.2	0 0.23	0.06
Mexico	4.54	3.26	3.66	4.00	4.58	5.50	5.69	0.79	0.13	0.12	0.09	0.1	6 0.10	0.19
S.Africa	7.51	6.58	6.38	7.68	6.34	7.99	8.41	0.26	0.02	0.04	0.02	0.0	3 0.08	0.06
Turkey	6.43	5.99	7.12	5.03	7.21	4.91	5.26	0.36	0.07	0.11	0.04	0.0	9 0.01	0.04

Regulations such as Basel III or Solvency II (limiting creditrisk) push much of that risk out the yield curve and/or into US/dollar assets today...

... while there isn't much to buy globally, except for Treasuries and investment grade credit (i.e. lots of duration risk), borrowers are taking advantage of this cheap long-funding dynamic (to the detriment of savers)...





US IG industrial long-dated cumulative issuance



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We have shown in prior months how the lack of term premium in the Treasury market allows companies to borrow at distorted real rates, which goes right into corporate leverage, which in turn goes right into shareholders' pockets, both today and in the future (dividends today and more highly-geared equity for the future)...



With interest coverage not threatened at these rate levels, even with more leverage attached, companies are incentivized to merely gear their capital stack as the cost to do so is de minimis... Why risk capex when the bar here is low and the results are instantaneous?



The traditional Phillips Curve equation of rates of inflation at different levels of unemployment isn't nearly as relevant as it has been historically... What is more relevant today is the inherent cost of waiting before lifting off from emergency rate conditions; i.e. a new "Fill-ups" curve has emerged... the distortedly low term premiums are subsidizing borrowers versus savers as all entities with access to markets are "filling up" their balance sheets with inexpensive debt...

Corporate Balance Sheet (Borrowers)

Assets	A = Total Assets; ROA = Income from Operating Assets
Liabilities (Debt)	D = Debt as % of Capital
Equity	E = Equity as % of Capital
Normal Int. Rates	N = Rate of Interest in a "Normal" Market
Int. Rate Distortion	IRD = Policy-induced Distortion of Market Rates
Increm. Debt	X = Debt added to the Balance Sheet given IRD

Investor in Corp. Balance Sheet: (Wealthiest of the population)

Normal: ROE = ROA * (A ÷ E)

 $\frac{\text{Today:}}{\text{ROE} = (\text{ROA} + \text{IRD}) * (\text{A} \div [\text{E-X}])$

Higher ROA + Higher Leverage = Much Higher Returns to Wealthy Equity Owners Insurance / Pension Fund: (Savers)

<u>Normal:</u> Income = (D * N) Liability = (Policies ÷ N)

<u>Today:</u> Income = D * (N-IRD) Liability = (Policies ÷ [N-IRD])

Lower Incomes & Larger Liabilities

The global economy is witnessing a redistribution of wealth and income with borrowers winning and savers losing...

If savers revolt, markets can become increasingly volatile with capital markets becoming potentially closed...

Is that what has been happening to markets recently? Is that a premonition of things to come???

Source: Evercore ISI

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Who Wins: Who Loses: Corporate borrowers Pensioners and the Insured Wealthy shareholders Long-term investors as companies hamper earnings Short-term investors: higher potential by substituting ROEs, and "activist" share capital investment for capital buybacks and dividends, returns given dearth of yield Savers with lower return on Anyone who wants to cash borrow who hasn't qualified can now do so as shadow Bond investors forced to banking grows underwrite higher leverage at lower yields ... and other forms of leveraging/deteriorating underwriting standards takes place... Auto Credit Availibility 90% 80% Evercore ISI Auto Dealers Survey 70% 60% 0% of auto 50% dealers reporting financing is hard 40% to get for 30% **customers** 20% 10% 0% 2007 2008 2010 2011 2012 2013 2014 2009