Suitability of the STOXX GC Pooling EUR Deferred Funding Rate as an alternative benchmark for the money market

Bachelor Thesis Jennifer Ertel

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Agenda

- Welcome
- Structure of the thesis
- Structure of the presentation
- Findings
- Closing words



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July 2014

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Structure of the thesis

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Structure of the presentation

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- Attributes of a benchmark for the money market
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 - **RepoFunds Rate Indices** Index of the secured money market
 - STOXX GC Pooling EUR Deferred Funding Rate Index of GC Pooling market
- Suitability of the STOXX GC Pooling EUR Deferred Funding Rate as an alternative benchmark
 - The STOXX GC Pooling EUR Deferred Funding Rate as an alternative to EONIA
 - Comparison STOXX GC Pooling EUR Deferred Funding Rate and RepoFunds Rate Indices
 - Problem of conversion to the STOXX GC Pooling EUR Deferred Funding Rate
 - Benefit of the STOXX GC Pooling EUR Deferred Funding Rate



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The STOXX GC Pooling EUR Deferred Funding Rate Composition of the Index





The STOXX GC Pooling EUR Deferred Funding Rate Difference between the Funding Rate and the Deferred Funding Rate



eurex repo

Attributes of a benchmark for the money market

Attribute 1: Transparent representation of the money market

Attribute 2: Representation of a liquid interbank market

Attribute 3: Representation of a crisis stable interbank market

Attribute 4: Transaction-based data

Attribute 5: Liquidity-driven interest rates

Attribute 6: Representative number of market participants

Attribute 7: Representative number of collaterals



Attributes of a benchmark for the money market

	Attribute	Priority	Points
1	Transparent representation of the money market	2	4
2	Representation of a liquid interbank market	1	6
3	Representation of a crisis stable interbank market	1	6
4	Transaction-based data	2	4
5	Liquidity-driven interest rates	2	4
6	Representative number of market participants	3	2
7	Representative number of collaterals	4	1
		Total:	27



Fulfilment of the attributes EONIA - Index of the unsecured money market

Attribute	fulfilled	Reason	Points
1 Transparent representation of the money market	-	No transparent representation of an OTC market	0
2 Representation of a liquid interbank market	-	Representation of an illiquid and inefficient unsecured interbank market	0
3 Representation of a crisis stable interbank market	-	Collapse of the unsecured interbank money market caused by the crisis	0
4 Transaction-based data	ü	Transactions of panel banks	4
5 Liquidity-driven interest rates	ü	Price of money is reflected	4
6 Representative number of market participants	-	Only 35 panel banks, some other banks already resigned from the panel	0
7 Representative number of collaterals	-	No collaterals	0
Total:	2		8



Fulfilment of the attributes EUREPO - Index of the secured money market

Attribute	fulfilled	Reason	Points
1 Transparent representation of the money market	-	No transparent representation of an OTC market	0
2 Representation of a liquid interbank market	ü	Representation of a liquid secured interbank market	6
3 Representation of a crisis stable interbank market	ü	Representation of the secured interbank money market which mainly stayed stable during the crisis	6
4 Transaction-based data	-	Non-binding quotations	0
5 Liquidity-driven interest rates	ü	Consideration of GC-Repo rates	4
6 Representative number of market participants	-	Only 11 panel banks in 6 countries	0
7 Representative number of collaterals	ü	European government bonds	1
Total:	4		17



Fulfilment of the attributes RepoFunds Rate Indices - Index of the secured money market

Attribute	fulfilled	Reason	Points
1 Transparent representation of the money market	ü	CCP increases market transparency	4
2 Representation of a liquid interbank market	ü	Representation of a liquid secured interbank market	6
3 Representation of a crisis stable interbank market	ü	Representation of the secured interbank money market which mainly stayed stable during the crisis	6
4 Transaction-based data	ü	Transactions traded via BrokerTec oder MTS	4
5 Liquidity-driven interest rates	-	Consideration of Special-Repo rates and GC-Repo rates	0
6 Representative number of market participants	ü	Average Trades per day: 7.128	2
7 Representative number of collaterals	-	Only government bonds from Germany, France, Italy	0
Total:	5		22



Fulfilment of the attributes STOXX GC Pooling EUR Deferred Funding Rate -Index of GC Pooling market

Attribute	fulfilled	Reason	Points
1 Transparent representation of the money market	ü	 CCP increases market transparency Open quote book Full market depth Transparent trade prices 	4
2 Representation of a liquid interbank market	ü	Representation of the secured GC Pooling market with high trading volume	6
3 Representation of a crisis stable interbank market	ü	Crisis stable marketIn particular, grown in times of crisis	6
4 Transaction-based data	ü	Transactions traded via the Eurex Repo trading system	4
5 Liquidity-driven interest rates	ü	Consideration of GC-Repo rates	4
6 Representative number of market participants	ü	114 participations in 14 countries	2
7 Representative number of collaterals	ü	More than 28.500 ECB-eligible securities	1
Total:	7		27



Fulfilment of the attributes Conclusion

EONIA:	2 fulfilled attributes; 8 points
EUREPO:	4 fulfilled attributes; 17 points
RepoFunds Rate Indices:	5 fulfilled attributes; 22 points
STOXX GC Pooling Deferred Funding Rate:	7 fulfilled attributes; 27 points

EONIA is/was the most important benchmark for the interbank money market

EONIA should be replaced by either the STOXX GC Pooling Deferred Funding Rate or the RepoFunds Rate Indices

• EUREPO is not suitable as benchmark or as an alternative to EONIA



Suitability of the STOXX GCP DFR as an alternative benchmark The STOXX GCP DFR as an alternative to EONIA

Trading volume* STOXX GCP DFR vs. EONIA



www.eurexrepo.com

repo

Suitability of the STOXX GCP DFR as an alternative benchmark The STOXX GCP DFR as an alternative to EONIA

repo

3.5 0.2 0.1 Percentage points 3 0 -0.1 -0.2 2.5 Percentage points -0.3 2 1.5 1 0.5 0 07/01/2011 07/01/2012 07/01/2013 07/01/2010 07/01/2014 deposit facility **DFR Index EONIA Index** main refinancing operations marginal lending facility Spread EONIA* - DFR* (right scale) Spread EONIA - STOXX GCP DFR (trend line) eurex

www.eurexrepo.com

Interest rate - STOXX GCP DFR vs. EONIA

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Suitability of the STOXX GCP DFR as an alternative benchmark The STOXX GCP DFR as an alternative to EONIA

The STOXX GC Pooling EUR Deferred Funding Rate **can be used as an alternative** to EONIA due to:

higher liquidity



simultaneous interest rate curve



representation of the value of money without regard to the credit risk of banks



Suitability of the STOXX GCP DFR as an alternative benchmark Comparison STOXX GCP DFR and RepoFunds Rate Indices



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Suitability of the STOXX GCP DFR as an alternative benchmark Comparison STOXX GCP DFR and RepoFunds Rate Indices



Volume* STOXX GCP DFR vs. RFR GFI

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Suitability of the STOXX GCP DFR as an alternative benchmark Comparison STOXX GCP DFR and RepoFunds Rate Indices

In general, the RepoFunds Rate Indices may be suitable as a benchmark, **but not for the money market**. Because:



Special-Repo rates represent the value of special securities instead of the value of money. In the RepoFunds Rate Indices Special- and GC-Repo rates were mixed:

Average Daily Number of Trades							
Average daily trade count (pre-filter Q1 2013):							
GENERAL COLLATERAL TRADES	SPECIFIC COLLATERAL TRADES	TOTAL TRADES					
49	2314	2383					
103	1559	1662					
644	2459	3103					
	Number of Trades count (pre-Niter Q1 2013): GENERAL COLLATERAL TRADES 49 103 644	Number of Trades count (pre-filter Q1 2013): GENERAL COLLATERAL TRADES 49 2314 103 1bb9 644 2459					

the RepoFunds Rate Indices only consider trades against government bonds from Germany, France and Italy, which is not a representative number of collaterals

The STOXX GC Pooling EUR Deferred Funding Rate considers only GC-Repo Rates and covers the euro zone better



Suitability of the STOXX GCP DFR as an alternative benchmark Problem of conversion to the STOXX GCP DFR

- Due to the "force of habit" of market participants, it is a long-term and difficult process to establish a new market standard and to replace the existing one
- A change would cost incalculable, financial expenses
- A general change in interest rates on existing contracts is difficult because of the amount and heterogeneity of the contracts



Suitability of the STOXX GCP DFR as an alternative benchmark Benefit of the STOXX GCP DFR

The STOXX GC Pooling Deferred Funding Rate



- can be used in many ways:
- Banks and Corporates
- Treasury Department, Risk Management, Accounting etc.
- may contribute to restore confidence in reference rates and the financial system



may contribute to promote financial stability and to form a reliable basis for monetary policy operations.



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