

## RTS 28 Quality of Execution Annual Report

Firm: PGGM Vermogensbeheer BV

Calendar Year Disclosure Period: 1 January 2022 to 31 December 2022

Date: 11 April 2023

Summary of classes of instruments included in this report, and class of instruments not included in this report (because PGGM has not executed client orders in that class of instruments)<sup>1</sup>:

Classes of instruments included in this report
<ul style="list-style-type: none"><li>• <i>Debt Instruments</i></li><li>• <i>Interest rates derivatives</i></li><li>• <i>Equities</i></li><li>• <i>Currency derivatives</i></li><li>• <i>Futures</i></li></ul>

RTS 28 reporting requires firms to classify executed orders as “passive”, “aggressive” or “directed”, where these are defined as the following:

- “passive” order means an order entered into the order book that provided liquidity;
- “aggressive” order means an order entered into the order book that took liquidity;
- “directed” order means an order where a specific execution venue was specified by the client prior to the execution of the order.

Only orders executed directly on exchange would be eligible for this “passive” or “aggressive” classification. This is not the case with PGGM. Trading volume identified as “passive” or “aggressive” in the following reporting is therefore not applicable.

PGGM does not have any client relationships where the client directs PGGM to use a specific venue. There are therefore no directed orders.

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<sup>1</sup> As defined in Annex 1 of [RTS 28](#).

<b>Class of instrument</b>	Debt Instruments
<b>General observations</b>	Debt instruments include both bonds and money market instruments.
<b>Summary of analysis</b>	
<b>Execution factors</b>	<p>PGGM defines the best possible result as a proper balance between cost, service and client added value within the existing risk and regulatory frameworks. PGGM takes into account the following factors:</p> <ul style="list-style-type: none"> <li>• Sustainability factors</li> <li>• Relationship factors</li> <li>• Service consistency</li> <li>• Footprint</li> <li>• Price</li> <li>• Cost of execution</li> <li>• Nature and size of the order</li> <li>• Speed and likelihood of execution</li> <li>• Settlement factors</li> <li>• All other relevant factors</li> </ul> <p>Cost is determined as total cost. This includes price, and all other costs of execution, such as venue rebates, clearing cost, settlement cost and/or third party execution cost.</p> <p>Best Execution is a process that cannot always be drilled down to a single execution. Elements such as sustainability factors, relationship factors and service consistency need to be monitored and valued over a longer period of time.</p>
<b>Close links, conflicts of interest and common ownership with respect to execution venues</b>	<p><b>Close links</b> PGGM has no close links with execution venues/brokers that were used to execute orders</p>
	<p><b>Conflicts of interest</b> PGGM has no conflicts of interest to report.</p>
	<p><b>Common ownerships</b> PGGM has no common ownership to report.</p>
<b>Specific arrangements with execution venues regarding payments made or received,</b>	PGGM has no specific arrangements to report.

<b>discounts, rebates or non-monetary benefits received</b>	
<b>Factors leading to a change in the list of execution venues listed in the order execution policy</b>	There were no changes to the list of execution venues/brokers in PGGM's Order Execution Policy.
<b>Differentiation across client categories</b>	N/A - all of PGGM's clients are classified as professional clients
<b>Use of data / tools relating to quality of execution</b>	<p>PGGM has used the data and/or tools relating to quality of execution coming from:</p> <ul style="list-style-type: none"> <li>• Order management System</li> <li>• Trading venues</li> <li>• In house TCA report</li> <li>• In house Broker review</li> </ul>
<b>Use of consolidated tape provider output</b>	PGGM has not used output from consolidated tape providers, as no useful consolidated tape data was available in 2022 for this instrument type.
<b>Use of DEA</b>	No direct electronic access to execution venues we used. The list of the top 5 venues:

	Debt Instruments				
Notification if <1 average trade per business day in the previous year	N				
Top 5 Venues in terms of volume (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed traded as a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
XFRA Deutsche Boerse AG	23.78%	9.90%	na	na	na
XPAR Euronext Paris S.A	21.97%	8.17%	na	na	na
XBRU Euronext Brussels	8.56%	3.75%	na	na	na
XAMS Euronext Amsterdam	8.23%	3.13%	na	na	na
XLUX Bourse de Luxembourg	6.80%	4.31%	na	na	na
<b>Conclusion</b>	<p>PGGM evaluates both the execution as well as its counterparties along the benchmark of its best execution definition.</p> <p>To evaluate brokers and counterparties a broker review is used. The 2022 broker review indicates that counterparties used acted in line with PGGM's best execution policy.</p> <p>Evaluation of transactions is done via a Transaction Cost Analysis (TCA) report. This report evaluates the cost and footprint on a transaction basis as well as over all transactions. The 2022 TCA report indicates that PGGM acted in line with its best execution policy.</p> <p>An exemption report is set up and is monitored by Compliance. In 2022 no incidents were reported.</p> <p>Electronic trading platforms are selected on basis of functionality, counterparties connected, liquidity offered and user-friendliness. Periodically PGGM evaluates the offerings available in the market to see if the proper platforms are installed and used. The 2022 evaluation indicates that platforms used meet the requirements in line with PGGM's best execution policy.</p> <p>The output of the used tools indicates that PGGM acted in line with its best execution policy during 2022.</p>				

<b>Class of instrument</b>	Interest rate derivatives
<b>General observations</b>	<p>Interest rate derivatives include interest rate swaps only.</p> <p>In 2022 Tradeweb has been the dominant venue for Interest rate derivatives trading. This venue is one of the leading venues that supports the electronic order routing and execution of the liquidity provided by our approved counterparties. The use of this venue aids to our commitment to realise best execution.</p> <p>The top 5 consists of 5 Counterparties, currently Systemic Internalisers</p>
<b>Summary of analysis</b>	
<b>Execution factors</b>	<p>PGGM defines the best possible result as a proper balance between cost, service and client added value within the existing risk and regulatory frameworks. PGGM takes into account the following factors:</p> <ul style="list-style-type: none"> <li>• Sustainability factors</li> <li>• Relationship factors</li> <li>• Service consistency</li> <li>• Footprint</li> <li>• Price</li> <li>• Cost of execution</li> <li>• Nature and size of the order</li> <li>• Speed and likelihood of execution</li> <li>• Settlement factors</li> <li>• All other relevant factors</li> </ul> <p>Cost is determined as total cost. This includes price, and all other costs of execution, such as venue rebates, clearing cost, settlement cost and/or third party execution cost.</p> <p>Best Execution is a process that cannot always be drilled down to a single execution. Elements such as sustainability factors, relationship factors and service consistency need to be monitored and valued over a longer period of time.</p>
<b>Close links, conflicts of interest and common ownership with respect to execution venues</b>	<p><b>Close links</b> PGGM has no close links with execution venues/brokers that were used to execute orders</p>
	<p><b>Conflicts of interest</b> PGGM has no conflicts of interest to report.</p>
	<p><b>Common ownerships</b> PGGM has no common ownership to report.</p>
<b>Specific arrangements with execution venues regarding payments</b>	PGGM has no specific arrangements to report.

<b>made or received, discounts, rebates or non-monetary benefits received</b>	
<b>Factors leading to a change in the list of execution venues listed in the order execution policy</b>	There were no changes to the list of execution venues/brokers in PGGM's Order Execution Policy.
<b>Differentiation across client categories</b>	N/A - all of PGGM's clients are classified as professional clients
<b>Use of data / tools relating to quality of execution</b>	PGGM has used the data and/or tools relating to quality of execution coming from: <ul style="list-style-type: none"> <li>• Order management System</li> <li>• Trading venues</li> <li>• In house TCA report</li> <li>• In house Broker review</li> </ul>
<b>Use of consolidated tape provider output</b>	PGGM has not used output from consolidated tape providers, as no useful consolidated tape data was available in 2022 for this instrument type.
<b>Use of DEA</b>	No direct electronic access to execution venues we used. The list of the top 5 venues:

Class of Instrument	Interest Rates Derivatives				
Notification if <1 average trade per business day in the previous year	N				
Top 5 Venues in terms of volume (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed traded as a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
8IBZUGJ7JPLH368JE346 Goldman Sachs Bank Europe SE	20.22%	8.15%	na	na	na
R0MUWSFPU8MPRO8K5P83 BNP Parisbas	19.77%	6.66%	na	na	na
549300ZK53CNGEEI6A29 JP Morgan SE	12.16%	3.90%	na	na	na
F0HUI1NY1AZMJMD8LP67 HSBC Continental Europe	11.30%	3.50%	na	na	na
7LTWFZYICNSX8D621K86 Deutsche Bank AG	6.17%	5.99%	na	na	na
<b>Conclusion</b>	<p>PGGM evaluates both the execution as well as its counterparties along the benchmark of its best execution definition.</p> <p>To evaluate brokers and counterparties a broker review is used. The 2022 broker review indicates that counterparties used acted in line with PGGM's best execution policy.</p> <p>Evaluation of transaction is done via a Transaction Cost Analysis (TCA) report. This report evaluates the cost and footprint on a transaction basis as well as over all transactions. The 2022 TCA report indicates that PGGM acted in line with its best execution policy.</p> <p>An exemption report is set up and is monitored by Compliance. In 2022 no incidents were reported.</p> <p>Electronic trading platforms are selected on basis of functionality, counterparties connected, liquidity offered and user-friendliness. Periodically PGGM evaluates the offerings available in the market to see if the proper platforms are installed and used. The 2022 evaluation indicates that platforms used meet the requirements in line with PGGM's best execution policy</p> <p>The output of the used tools indicates that PGGM acted in line with its best execution policy during 2022.</p>				

<b>Class of instrument</b>	Equities
<b>General observations</b>	In 2022 Bloomberg has been the preferred execution venue. This venue is used to route 100% of the orders to brokers execution desks or broker algorithms. It supports an electronic order workflow, it facilitates the products PGGM uses and provides access to all our counterparties. The use of this venue aids to our commitment to realise best execution.
<b>Summary of analysis</b>	
<b>Execution factors</b>	<p>PGGM defines the best possible result as a proper balance between cost, service and client added value within the existing risk and regulatory frameworks. PGGM takes into account the following factors:</p> <ul style="list-style-type: none"> <li>• Sustainability factors</li> <li>• Relationship factors</li> <li>• Service consistency</li> <li>• Footprint</li> <li>• Price</li> <li>• Cost of execution</li> <li>• Nature and size of the order</li> <li>• Speed and likelihood of execution</li> <li>• Settlement factors</li> <li>• All other relevant factors</li> </ul> <p>Best Execution is a process that cannot always be drilled down to a single execution. Elements such as sustainability factors, relationship factors and service consistency need to be monitored and valued over a longer period of time. Monitoring of transactions is done on a trade by trade base.</p>
<b>Close links, conflicts of interest and common ownership with respect to execution venues</b>	<b>Close links</b> PGGM has no close links with execution venues/brokers that were used to execute orders
	<b>Conflicts of interest</b> PGGM has no conflicts of interest to report.
	<b>Common ownerships</b> PGGM has no common ownership to report.
<b>Specific arrangements with execution venues regarding payments made or received, discounts, rebates or</b>	PGGM has no specific arrangements to report.



<b>non-monetary benefits received</b>	
<b>Factors leading to a change in the list of execution venues listed in the order execution policy</b>	There were no changes to the list of execution venues/brokers in the PGGM's Order Execution Policy.
<b>Differentiation across client categories</b>	N/A - all of the PGGM's clients are classified as professional clients
<b>Use of data / tools relating to quality of execution</b>	PGGM has used the data and/or tools relating to quality of execution coming from: <ul style="list-style-type: none"> <li>• Order management System</li> <li>• Trading venues</li> <li>• In house TCA report</li> <li>• In house Broker review</li> </ul>
<b>Use of consolidated tape provider output</b>	The Firm has not used output from consolidated tape providers.
<b>Use of DEA</b>	No direct electronic access to execution venues we used. The list of the top 5 venues: <ul style="list-style-type: none"> <li>• Tick size liquidity band 1 and 2 (from 0 to 79 trades per day) - Less liquid shares</li> <li>• Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day) - Medium liquid shares</li> <li>• Tick size liquidity bands 5 and 6 (from 2000 trades per day) - Highly liquid shares</li> </ul>

<b>Class of Instrument</b>	<b>Equities - Shares &amp; Depositary Receipts tick size liquidity bands 1 and 2</b>				
<b>Notification if &lt;1 average trade per business day in the previous year</b>	<b>N</b>				
<b>Top 5 Venues in terms of volume (descending order)</b>	<b>Proportion of volume traded as a percentage of total in that class</b>	<b>Proportion of orders executed traded as a percentage of total in that class</b>	<b>Percentage of passive orders</b>	<b>Percentage of aggressive orders</b>	<b>Percentage of directed orders</b>
XHKG The Stock Exchange of Hong Kong	44.36%	0.64%	na	na	na
XNYS New York Stock Exchange	5.77%	3.69%	na	na	na
JPMX JP Morgan	3.90%	3.62%	na	na	na
XSES Singapore Stock Exchange	3.77%	0.05%	na	na	na
XTKS Tokyo Stock Exchange	3.72%	0.73%	na	na	na

<b>Class of Instrument</b>	<b>Equities - Shares &amp; Depository Receipts tick size liquidity bands 3 and 4</b>				
<b>Notification if &lt;1 average trade per business day in the previous year</b>	<b>N</b>				
<b>Top 5 Venues in terms of volume (descending order)</b>	<b>Proportion of volume traded as a percentage of total in that class</b>	<b>Proportion of orders executed traded as a percentage of total in that class</b>	<b>Percentage of passive orders</b>	<b>Percentage of aggressive orders</b>	<b>Percentage of directed orders</b>
XMAD Madrid Stock Exchange	20.30%	1.19%	na	na	na
CEUD CBOE Europe - DXE Dark Order Book	10.62%	8.13%	na	na	na
TQEM Turquoise Europe	10.14%	6.94%	na	na	na
BGSI Berenberg - Systematic Internaliser	7.27%	0.22%	na	na	na
XPOS Posit Dark	6.72%	6.07%	na	na	na

Class of Instrument	Equities - Shares & Depositary Receipts tick size liquidity bands 5 and 6				
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Top 5 Venues in terms of volume (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed traded as a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
XSES Singapore Stock Exchange	19.13%	0.20%	na	na	na
XHKG The Stock Exchange of Hong Kong	15.42%	0.63%	na	na	na
XASX Australian Stock Exchange	13.14%	0.48%	na	na	na
ASXC ASX	11.62%	0.27%	na	na	na
CXAP CBOE Australia	7.42%	0.27%	na	na	na

  

<b>Conclusion</b>	<p>PGGM evaluates both the execution as well as its counterparties along the benchmark of its best execution definition.</p> <p>To evaluate brokers and counterparties a broker review is used. The 2022 broker review indicates that counterparties used acted in line with PGGM's best execution policy.</p> <p>Evaluation of transactions is done with Transaction Cost Analysis (TCA). This report evaluates the costs on a transaction basis. For 2022 PGGM acted in line with its best execution policy.</p> <p>An exemption report is set up and is monitored by Compliance. In 2022 no incidents were reported.</p> <p>Electronic trading platforms are selected on basis of functionality, counterparties connected, liquidity offered and user-friendliness. Periodically PGGM evaluates the offerings available in the market to see if the proper platforms are installed and used. The 2022 evaluation indicates that platforms used meet the requirements in line with PGGM's best execution policy.</p> <p>The output of the used tools indicates that PGGM acted in line with its best execution policy during 2022.</p>
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<b>Class of instrument</b>	Currency derivatives
<b>General observations</b>	In 2022 Bloomberg has been the preferred execution venue. This venue is one of the leading execution venues for FX. It supports an electronic order workflow, it facilitates the products PGGM uses and provides access to all our counterparties. The use of this venue aids to our commitment to realise best execution.
<b>Summary of analysis</b>	
<b>Execution factors</b>	<p>PGGM defines the best possible result as a proper balance between cost, service and client added value within the existing risk and regulatory frameworks. PGGM takes into account the following factors:</p> <ul style="list-style-type: none"> <li>• Sustainability factors</li> <li>• Relationship factors</li> <li>• Service consistency</li> <li>• Footprint</li> <li>• Price</li> <li>• Cost of execution</li> <li>• Nature and size of the order</li> <li>• Speed and likelihood of execution</li> <li>• Settlement factors</li> <li>• All other relevant factors</li> </ul> <p>Best Execution is a process that cannot always be drilled down to a single execution. Elements such as sustainability factors, relationship factors and service consistency need to be monitored and valued over a longer period of time. Monitoring of transactions is done on a trade by trade base.</p>
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<b>Differentiation across client categories</b>	N/A - all of the PGGM's clients are classified as professional clients																								
<b>Use of data / tools relating to quality of execution</b>	<p>PGGM has used the data and/or tools relating to quality of execution as follows:</p> <ul style="list-style-type: none"> <li>• WM Reuters benchmark data</li> <li>• NewChange FX benchmark data</li> <li>• General market data</li> <li>• Broker provided market structure data</li> </ul>																								
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Data from several sources has been used to evaluate the execution quality. The results indicate that PGGM acted in line with its best execution policy during 2022.

<b>Class of instrument</b>	Futures
<b>General observations</b>	In 2022 all futures have been traded on the Chicago Board of Trade and Eurex.
<b>Summary of analysis</b>	
<b>Execution factors</b>	<p>PGGM defines the best possible result as a proper balance between cost, service and client added value within the existing risk and regulatory frameworks. PGGM takes into account the following factors:</p> <ul style="list-style-type: none"> <li>• Sustainability factors</li> <li>• Relationship factors</li> <li>• Service consistency</li> <li>• Footprint</li> <li>• Price</li> <li>• Cost of execution</li> <li>• Nature and size of the order</li> <li>• Speed and likelihood of execution</li> <li>• Settlement factors</li> <li>• All other relevant factors</li> </ul> <p>Best Execution is a process that cannot always be drilled down to a single execution. Elements such as sustainability factors, relationship factors and service consistency need to be monitored and valued over a longer period of time. Monitoring of transactions is done on a trade by trade base.</p>
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Evaluation of transactions is done with Transaction Cost Analysis (TCA). This report evaluates the costs on a transaction basis. For 2022 PGGM acted in line with its best execution policy.

An exemption report is set up and is monitored by Compliance. In 2022 no incidents were reported.

Electronic trading platforms are selected on basis of functionality, counterparties connected, liquidity offered and user-friendliness. Periodically PGGM evaluates the offerings available in the market to see if the proper platforms are installed and used. The 2022 evaluation indicates that platforms used meet the requirements in line with PGGM's best execution policy.

The output of the used tools indicates that PGGM acted in line with its best execution policy during 2022.