

# **PORTFOLIOS AT SCALE**

## **Prototype**

This document presents a draft of the User Interface and functionalities of a user-level tool developed internally and based on the requirements gathered with the Institutional Solutions team as well as the Discretionary Mandates team. In no case are the functions related to the administration, maintenance or support of the tool considered.

The Institutional Solutions team obtained around 30 model portfolios, which will allow them to manage into a more efficient and automated manner. These could comprise up to around 200 portfolios nowadays - equivalent to around 1.7bn AuMs, although certain process of homogenization should be developed across current bonds and stocks portfolios.

### **1) TEAM REQUIREMENTS**

- The Asset Classes will consider the following investment vehicles.
- Mandates are grouped by 6 buckets or risk profiles.
- Each risk profile has set legal risk limits signed with the Bank:

Perfil de riesgo	Porcentaje de Renta Variable sobre el total de la cartera	Porcentaje de Renta Fija High Yield sobre el total de la cartera	Porcentaje de Divisa sobre el total de la cartera
Renta Fija	0%	Hasta el 30%	Hasta el 20%
Conservador	Hasta el 20%	Hasta el 30%	Hasta el 20%
Moderado	Hasta el 40%	Hasta el 50%	Hasta el 40%
Equilibrado	Hasta el 60%	Hasta el 80%	Hasta el 60%
Dinámico	Hasta el 80%	Hasta el 100%	Hasta el 80%
Agresivo (1)	Hasta el 100%	Hasta el 100%	Hasta el 100%

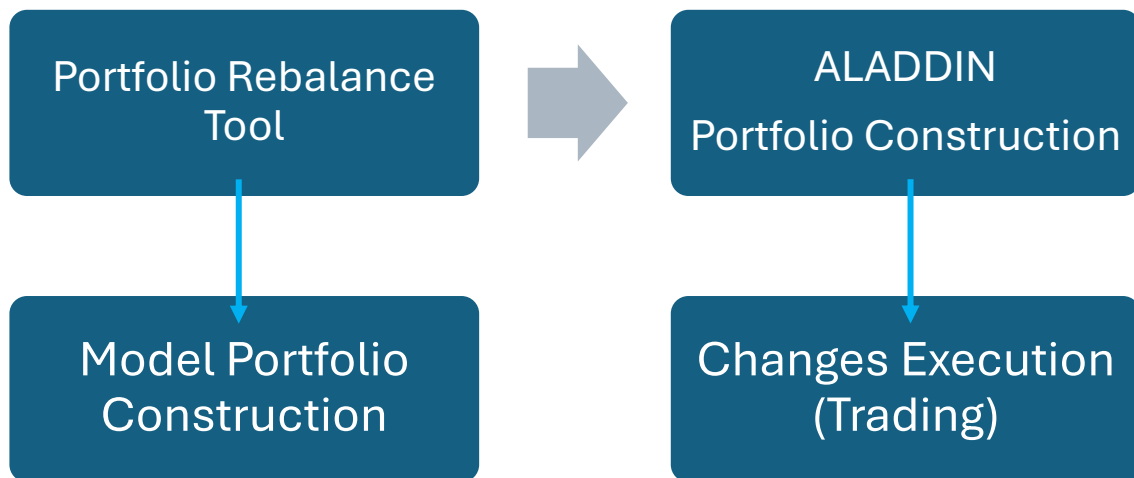
- Have in a single view the SAA, TAA and Benchmark Allocation.
- Ability to have the option adjust the TAA inputs, that is, to add in the tool a discretionary tilt.
- Mandates breakdown have to be aligned with the TAA Grid.
- Establish investable universe with a security classification scheme
- Update TAA views.
- Integrate TAA changes onto SAA model portfolios, with a subsequent cascade into mandates considering specifications and security classification scheme.

- Rebalancing process output upload into Aladdin.
- Add/Change Building Blocks.
- Modify changes to building block per mandate.
- Include Off-Grid strategies.
- Add in the tool a brief description about the general limits and constraints of the mandate.
- Create groups of portfolios ad-hoc per portfolio manager.
- Apply changes in model portfolios in batch mode.

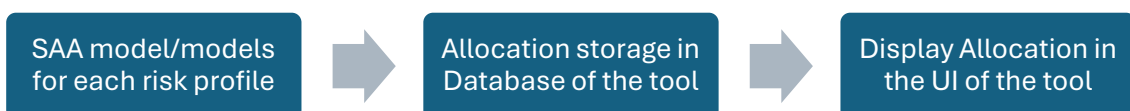
## 2) PROTOTYPE

a) Preliminary considerations:

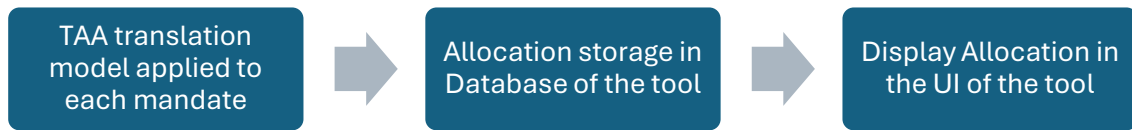
- It is assumed that the users of the tool want to transfer or at least want to be able to check their mandate against the TAA model portfolio. Discretionary adjustments to the model portfolio are enabled at the request of the teams.
- This tool allows industrialized model portfolios to be uploaded to Portfolio Construction (Aladdin) where the changes will then be executed. The workflow with the usage of the tool will be the following:



- SAA Weights will be calculated automatically for each mandate with a model plugged-in the tool.

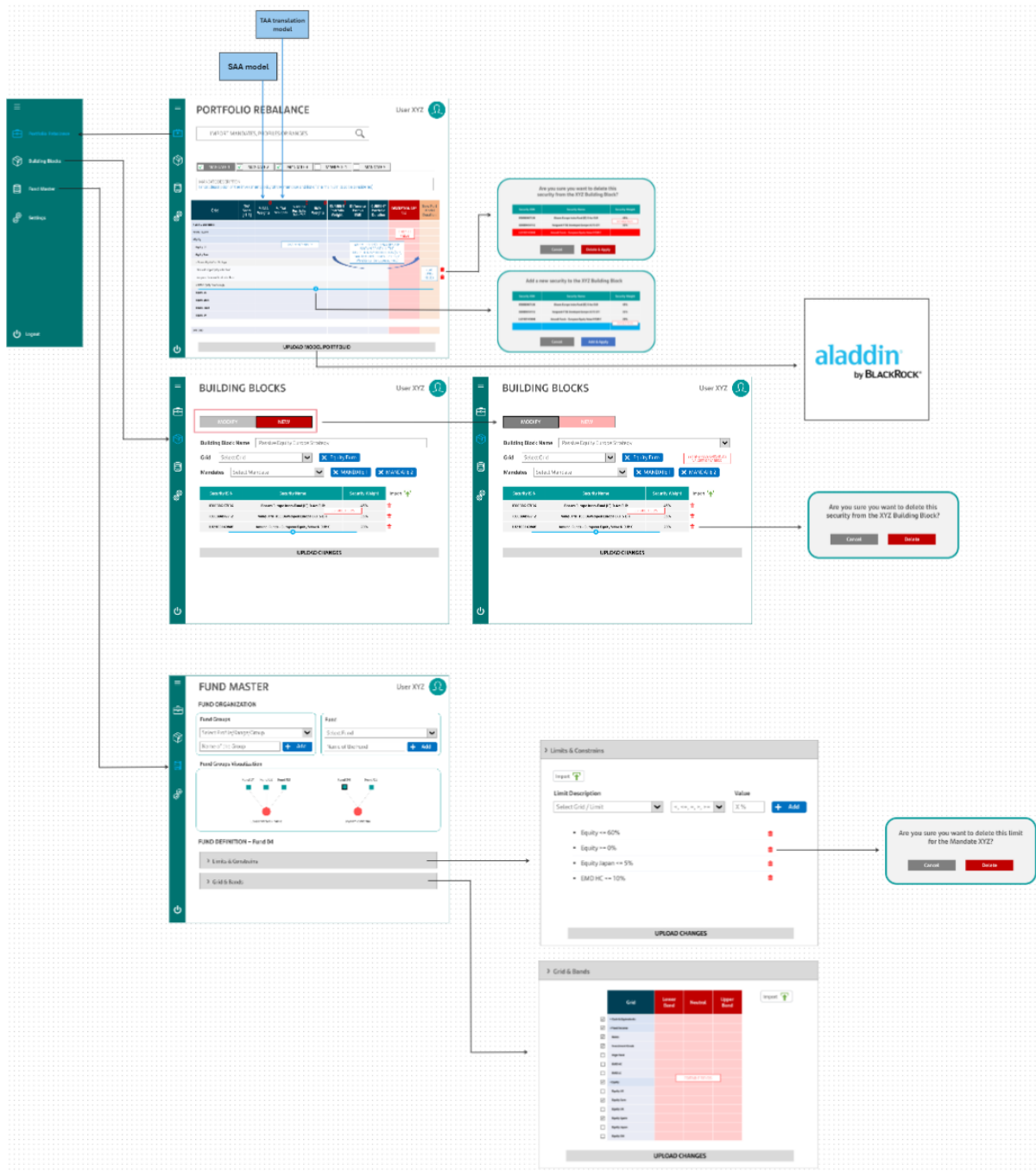


- TAA will be translated to TAA Weights with a model plugged-in the tool that will calculate automatically the allocation for each mandate.

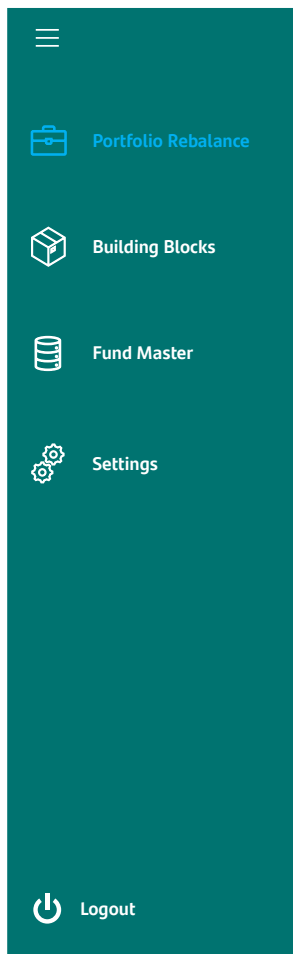


- To do the TAA translation, it is considered the structure followed in Triumph, so for each mandate it will be necessary to define the lower, neutral and upper bands.

b) Prototype Map:



c) Prototype Options:



- Portfolio Rebalance: Dashboard to manage portfolio rebalancing and uploading of model portfolios to Aladdin Portfolio Construction.
- Building Blocks: Creation and modification of Building Blocks used in mandates.
- Fund Master: Management of mandates included the Database of the tool. Main functionalities allow PMs to create groups of mandates by range or risk profile and include limits and TAA applicable bands to mandates.

#### d) Portfolio Rebalance:

PORTFOLIO REBALANCE

User XYZ

IMPORT MANDATES, PROFILES OR RANGES

☒

 MANDATE 1
 

☒

 MANDATE 2
 

☒

 MANDATE 3
 

☐

 MANDATE 4
 

☐

 MANDATE 5

MANDATE DESCRIPTION

(short description of the investment policy of the mandate and list of the main limits to be considered)

Grid	TAA Score [-1,1]	%SAA Weights	% TAA Weights	% Model Portfolio (SAA + TAA)	BMK Weights	CURRENT Portfolio Weight	Difference Port vs BMK	CURRENT Portfolio Duration	DISCRETIONARY tilt	New Port Model Duration
› Cash & Equivalents										
› Fixed Income									EDITABLE FIELDS	
› Equity										
› Equity US										
› Equity Euro										
› Passive Equity Euro Strategy										
iShares Europe Equity Index Fund										
Vanguard European Stock Index Fund										
› Active Equity Euro Strategy										
› Equity UK										
› Equity Spain										
› Equity Japan										
› Equity EM										
OFF GRID										

+

MODEL PORTFOLIO FIGURES ARE SHOWN AS WELL IN THE DISCRETIONARY TILT COLUMN (but, SAA, BMK and CURRENT Portfolio Weights can be copied as well)

READ ONLY FIELDS

READ ONLY FIELDS

UPLOAD MODEL PORTFOLIO

The Portfolio Rebalance dashboard enables PMs to manage and upload portfolio models effectively into the Aladdin Portfolio Construction tool.

This dashboard simplifies the rebalancing process, ensuring alignment with strategic and tactical asset allocation goals while respecting constraints and policy limits.

Key features include:

- Importing individual mandates, risk profile associated mandates or ranges of mandates (previously parametrized in the Fund Master dashboard). In the search engine the PM could input any of the previous features and the mandates will be displayed in the dashboard.
- Select the mandates where the changes are going to be applied by clicking on the check boxes.

- Display a brief description about the mandate and its main limits.
- View a detailed breakdown of the TAA Grid aligned with the mandate's assets (prior to the parametrization of the mandate's Building Blocks). This breakdown will provide different levels corresponding to the TAA, but it will also include the Building Block and the securities inside if the rows are fully expanded.
- Compare in a seamless way SAA, TAA, Benchmark and Current Portfolio allocations and adjust model portfolio allocations through discretionary tilts.
- SAA and TAA allocations will be calculated in the backend of the tool and displayed in the user interface.
- Current Portfolio allocations: In the backend there will be a process to download this information from Aladdin, store it in the Database of the tool and display in the UI.
- Added functionality to copy-paste the allocations from SAA, Model Portfolio, Benchmark and Current Portfolio to the Discretionary tilt column.
- Upload changes of the model portfolio directly to Aladdin Portfolio Construction tool, ensuring seamless updates.
- Shortcut (trash symbol) to remove securities from a Building Blocks. A window to apply and confirm changes will be displayed.

Are you sure you want to delete this security from the XYZ Building Block?

Security ISIN	Security Name	Security Weight
IE00BDRK7L36	iShares Europe Index Fund (IE) D Acc EUR	45%
IE00B945VV12	Vanguard FTSE Developed Europe UCITS ETF	35%
LU2183143846	Amundi Funds - European Equity Value R EUR C	

Cancel

Delete & Apply

- Shortcut (“+” symbol) to add securities from a Building Blocks. A window to apply and confirm changes will be displayed.

Add a new security to the XYZ Building Block

Security ISIN	Security Name	Security Weight
IE00BDRK7L36	iShares Europe Index Fund (IE) D Acc EUR	45%
IE00B945VV12	Vanguard FTSE Developed Europe UCITS ETF	35%
LU2183143846	Amundi Funds - European Equity Value R EUR C	20%
		EDITABLE FIELDS

Cancel

Add & Apply



e) Building Blocks:

## BUILDING BLOCKS

User XYZ

MODIFY

NEW

Building Block Name

Passive Equity Europe Strategy

Grid

Select Grid

Equity Euro

Mandates

Select Mandate

MANDATE 1

MANDATE 2

Security ISIN	Security Name	Security Weight	
IE00BDRK7L36	iShares Europe Index Fund (IE) D Acc EUR	45%	
IE00B945VV12	Vanguard FTSE Developed Europe UCITS ETF	35%	
LU2183143846	Amundi Funds - European Equity Value R EUR C	20%	

Import

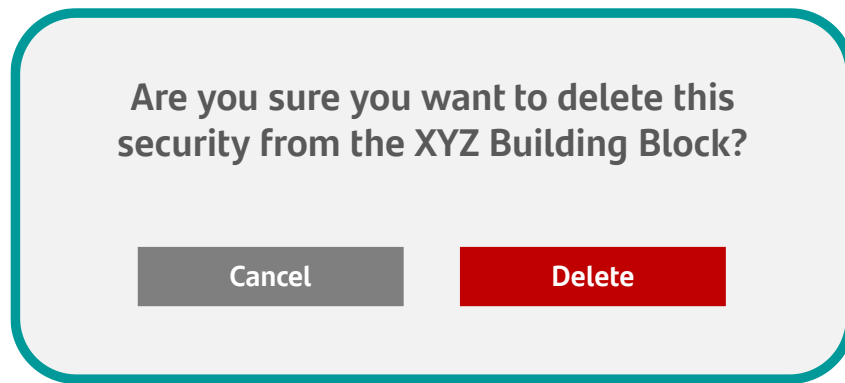
UPLOAD CHANGES

The Building Blocks dashboard allows the creation and modification investment strategies within mandates.

It facilitates modular portfolio construction, enhancing consistency and efficiency in aligning strategies across multiple mandates.

Features include:

- Assigning building blocks to specific mandates and asset classes (TAA Grid), providing flexibility in portfolio design.
- Editing and importing components of building blocks (e.g., equity strategies, fixed income strategies) with clear identification by ISIN, name and weight.
- Shortcut (“+” symbol) to add securities from a Building Blocks. An additional empty row in the table will be displayed.
- Shortcut (trash symbol) to remove securities from a Building Blocks. A window to apply and confirm changes will be displayed.



- Allowing adjustments to weights or security composition within each block.
- Uploading modified or new building blocks for integration into mandates and portfolios. When uploading the changes it will affect the Database of the tool, so it will not directly trigger the changes into Aladdin Portfolio Construction tool. To do so, it will be necessary to push it in the Portfolio Rebalance dashboard.
- Allowing adjustments to weights or security composition within each block.

f) Fund Master:

## FUND MASTER

User XYZ

### FUND ORGANIZATION

Fund Groups

Select Profile/Range/Group

Name of the Group

+ Add

Fund

Select Fund

Name of the Fund

+ Add

Fund Groups Visualization

Fund 01

Fund 02

Fund 03

Conservative Profile

Fund 04

Fund 05

Dynamic Profile

FUND DEFINITION – Fund 04

> Limits & Constrains

> Grid & Bands

The Fund Master dashboard provides tools for managing and organizing mandates included in the Database for each PM's permissions. It serves as a foundation for structured portfolio rebalancing process at scale.

Key features include:

- Grouping mandates by risk profiles, ranges or any other groups the PM may consider building.
- Defining and visualizing group-to-mandates relationship, providing a centralized view of mandates details to ensure transparency and alignment with investment policies.

- Defining, modifying or importing the main limits for each mandate. Upload button will apply the changes in the Database of the tool and will not trigger the changes into Aladdin Portfolio Construction tool. To do so, it will be necessary to push it in the Portfolio Rebalance dashboard. Additionally, shortcut (trash symbol) will remove limit and a window to apply and confirm changes will be displayed.

Limits & Constrains

Import

Limit Description

Value

Select Grid / Limit

<, <=, =, >, >=

X %

+ Add

- Equity <= 60%
- Equity >= 0%
- Equity Japan <= 5%
- EMD HC <= 10%

UPLOAD CHANGES

Are you sure you want to delete this limit for the Mandate XYZ?

Cancel
Delete

- Defining, modifying or importing the TAA bands applicable for each mandate. This is a necessary step in order to translate the TAA score into real weights, as it will quantify the how much of the score will became in weight. Upload button will apply the changes in the Database of the tool and will not trigger the changes into Aladdin Portfolio Construction tool. To do so, it will be necessary to push it in the Portfolio Rebalance dashboard. Additionally for this case, the specific grid applicable to the mandate needs to be marked in the checkbox.

Grid & Bands

Grid	Lower Band	Neutral	Upper Band
<input checked="" type="checkbox"/> > Cash & Equivalents			
<input checked="" type="checkbox"/> > Fixed Income			
<input checked="" type="checkbox"/> Rates			
<input checked="" type="checkbox"/> Investment Grade			
<input type="checkbox"/> High Yield			
<input type="checkbox"/> EMD HC			
<input type="checkbox"/> EMD LC			
<input checked="" type="checkbox"/> > Equity			
<input type="checkbox"/> Equity US			
<input checked="" type="checkbox"/> Equity Euro			
<input type="checkbox"/> Equity UK			
<input checked="" type="checkbox"/> Equity Spain			
<input type="checkbox"/> Equity Japan			
<input type="checkbox"/> Equity EM			

Import

EDITABLE FIELDS

UPLOAD CHANGES

### 3) ENHANCEMENTS:

The prototype contemplates most of the requirements gathered after several conversations with the investment teams. The rest of the needs that are not included in this MVP and that will be part of future enhancements of the tools are listed below:

- Raise the cases of mandates in which the Model Portfolio is not built by a SAA + TAA, but comes from a systematic signal (Future Wealth).
- Develop an API for quantitative PMs in order to use the functionalities of the tool through a code base manner.
- Include highly-detailed and specific limits for ad-hoc managed mandates.
- Add USD exposure in the Portfolio Rebalance table.
- Performance report and visualization.
- AI Agent (Chatbot) to interact with the tool.