STEP-BY-STEP GUIDE WITH SOLUTIONS | SIMPLIFIED TECHNICAL ENGLISH (ASD-STE100)

From Data to Data Story

Use case: Dealing Room Trade Exceptions (WBRS)
Data Storytelling Using Excel & PowerPoint (Advanced) | GCAD | 90 minutes

1 Discover | 2 Develop | 3 Design | 4 Drive

What you will make

- Three insights from the data, written with the insight formula (Discover).
- A choice of which insight needs a data story, a story script with S.T.O.R.Y, and the core message (Develop).
- The correct data story type and chart, and a hybrid title (Design).
- A clean chart with no clutter, ready for a management meeting (Drive).

How to use this guide

- Do the numbered steps with the trainer. Each line is one action.
- Compare your screen with the figure after each part.
- Green **Check** boxes tell you what you must see. If your result is different, stop and ask the trainer.
- Blue **Your task** boxes ask you to think and write. Write your answer in the worksheet first. Then read the orange **Solution** box.

Files

File	Content
WBRS Trade Exceptions Data.xlsx	Data: trade exceptions report, trade volume, FX Spot exception detail
WBRS Use Case Trade Exceptions.pdf	Use case and worksheet
This guide	Steps and solutions

All data is fictional and is for training only. Software: Microsoft Excel for Microsoft 365 (Windows) with Power Query.

Before you start

Item	Meaning
Data > Get Data	A menu path. Click each item from left to right.
Ctrl + T	Keys. Push them at the same time.
`Exceptions_Flat`	Text that you type, or a file or sheet name.
NOTE	Information that helps you.
CAUTION	A condition that can cause a wrong result.
CHECK	What you must see.
YOUR TASK	Think and write your answer.
SOLUTION	The model answer. Compare it with your answer.

1. Make a folder named `WBRS Demo` on your desktop.
2. Copy `WBRS Trade Exceptions Data.xlsx` into the folder.
3. Close all other Excel workbooks.

> **CAUTION** Do not change or save the data file. Power Query reads it.

Time plan (90 minutes)

Part	Content	Time
1 Discover	5-step insight process, with Power Query and PivotTables. Result: three insights.	40 min
2 Develop	Story Space, then 3C: Crowd, Content (S.T.O.R.Y), Core.	25 min
3 Design	Data story type, chart type, chart data, hybrid title text.	15 min
4 Drive	Remove chart junk, apply design thinking, add the hybrid title.	10 min

PART 1

Discover

Data > Story > Visual. Find the insights: WHAT happened + WHY it matters + WHAT to do.

DISCOVER | STEP 1

Understand the context

1. Open `WBRS Use Case Trade Exceptions.pdf`.
2. Read section 1 and section 2.
3. Write the answers to the five questions in the worksheet.

YOUR TASK What is the business question? Who is the audience? What decision will they make? What is the period? What is the scope?

SOLUTION

Question	Answer
Business question	Did the work-from-home pilot change the trade exception risk? Is it safe to extend it to all desks?
Audience	Head of Treasury & Markets (decision owner), with the Chief Compliance Officer and the Chief Internal Auditor.
Decision	Go ahead with, change, or pause the 1 January 2027 rollout to all five desks.
Period	October 2025 to September 2026. Pilot start: 1 May 2026.
Scope	Five dealing desks. Three exception types: After-Hours, Off-Premise, Backdated.

DISCOVER | STEP 2

Audit the data

1. Open `WBRS Trade Exceptions Data.xlsx`.
2. Read the **Read_Me** sheet.
3. Click the sheet **Exceptions_Report**. Compare it with Figure 1. Find the five layout issues.
4. Click cell O25. This is the Grand Total of the Total column. Write down the value.
5. Click the sheet **Trade_Volume**. Push **Ctrl + End**. Read the last row number.
6. Click the sheet **FX_Exception_Detail**. Push **Ctrl + End**. Read the last row number.
7. Close the file. Do not save.

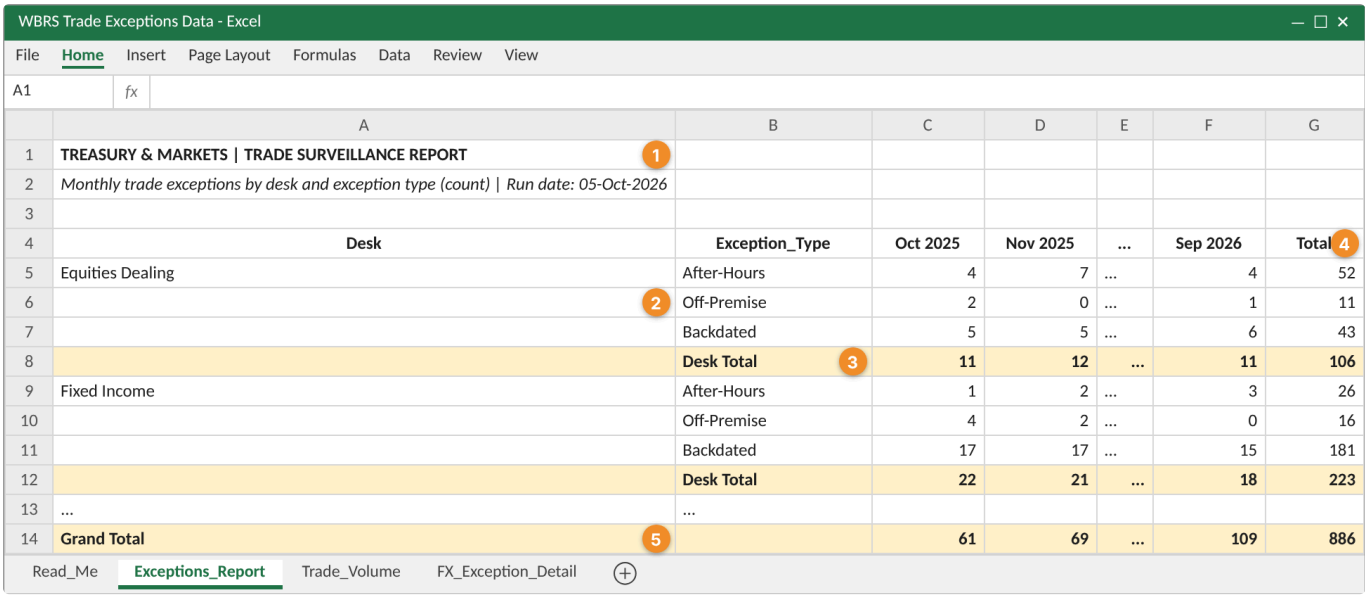


Figure 1: Exceptions_Report in crosstab format. The orange numbers show the five layout issues.

No.	Issue	Fix in Step 3
1	Title rows 1 to 3 above the header	Remove Top Rows (3)
2	Desk shows only on the first row of each group	Fill Down
3	Desk Total rows	Filter out "Desk Total"
4	Total column	Remove Columns
5	Grand Total row	Filter out "Desk Total"

CHECK Cell O25 = **886**. Trade_Volume: last row 61 (60 data rows). FX_Exception_Detail: last row 355 (354 data rows).

DISCOVER | STEP 3

Build the foundation

3.0 Start from the business question, not from the data

Do not clean the data first. First decide which questions you must answer. The questions tell you the shape of data that you need. Then change the data to get that shape.

Business question → Sub-questions → Data needed → Transformation

1. Write the business question from Step 1.
2. Break it into small sub-questions that data can answer.
3. For each sub-question, write the data that you need.
4. Examine the raw report. Can it answer the sub-question as it is?
5. If not, write the change that the data needs.

YOUR TASK Write the sub-questions for the business question: *Did the work-from-home pilot change the trade exception risk? Is it safe to extend it to all desks?*

SOLUTION

No.	Sub-question	Data needed	Transformation
1	Did exceptions change over time?	Exceptions by month in one column	Unpivot the months (3.3)
2	Did they change after the pilot started on 1 May 2026?	A label: before or after the pilot	Helper column **Period** (3.4)
3	Is the change only in FX Spot, or in all desks?	A desk on every row, and FX Spot vs the other desks	Fill Down Desk (3.2), helper column **Desk_Group** (3.4)
4	Are the numbers correct?	No total rows or columns inside the data	Remove title rows, Desk Total, Grand Total and Total (3.2)
5	Is the rise only because of more trades?	Trades by desk and month	Load Trade_Volume (3.5)
6	Who made the exceptions, and how?	One row for each FX Spot exception	Load FX_Exception_Detail (3.5)
7	Is it safe to extend the pilot?	The answers to 1 to 6	None. This is the insight (Step 5)

NOTE Write this sentence before each change: *I do this step because later I must answer sub-question ___*. If you cannot complete the sentence, you do not need the step.

Hypothesis to test: FX Spot exceptions rose after 1 May 2026, only in FX Spot, and not because of more trades.

3.1 Connect Power Query to the three data sheets

1. Open a new blank workbook. Save it in WBRS Demo with the name `Storytelling Workbook.xlsx`.
2. Click **Data > Get Data > From File > From Excel Workbook**.
3. Select `WBRS Trade Exceptions Data.xlsx`. Click **Import**.

4. In the Navigator, select the check box **Select multiple items**.
5. Select **Exceptions_Report**, **FX_Exception_Detail** and **Trade_Volume**. Do not select Read_Me.
6. Click **Transform Data**.

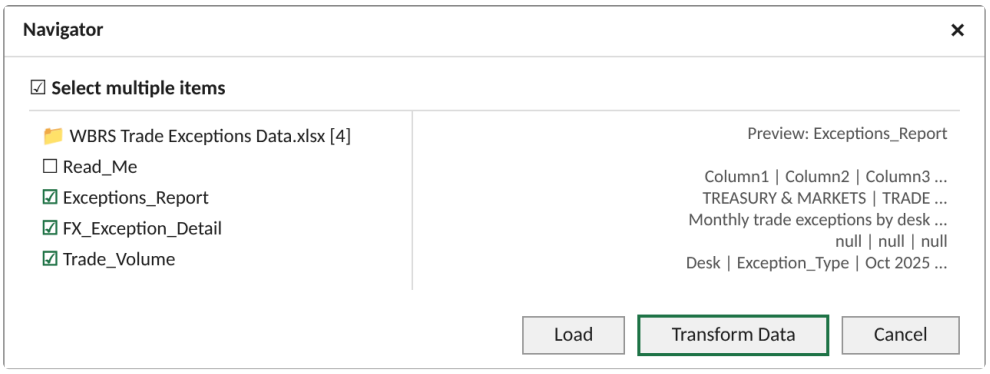


Figure 2: Navigator with three sheets selected.

3.2 Clean the crosstab

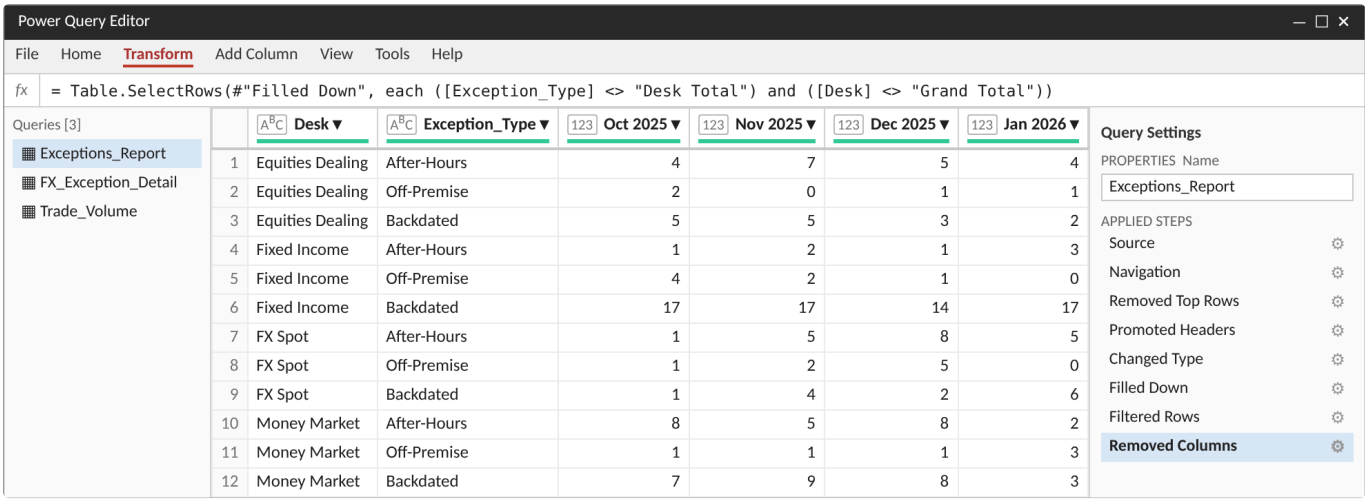
> **WHY THIS STEP** Sub-question 4: totals inside the data are counted two times, so all results are wrong. Sub-question 3: each row must show its desk, or you cannot compare desks.

1. In the Queries pane on the left, click **Exceptions_Report**.
2. In **APPLIED STEPS** on the right, examine the steps after **Navigation**.
3. If you see **Changed Type**, click it. Click the **X** on its left to delete it.
4. If you see **Promoted Headers**, click it. Click the **X** on its left to delete it.
5. Make sure that **Navigation** is now the last step and is selected. Row 1 of the preview must show the report title (TREASURY & MARKETS...).

> **CAUTION** Delete Changed Type before Promoted Headers. If you delete Promoted Headers first, Changed Type shows an error. If this occurs, delete Changed Type too.

> **NOTE** Always click the last step in APPLIED STEPS before you add a new step. If an earlier step is selected, Power Query inserts the new step in the middle.

6. Click **Home > Remove Rows > Remove Top Rows**. Type `3`. Click **OK**.
7. Click **Home > Use First Row as Headers**. Power Query adds two steps: Promoted Headers and Changed Type. This is correct.
8. Click the header **Desk**. Click **Transform > Fill > Down**.
9. Click the filter arrow on **Exception_Type**. Clear **Desk Total**. Click **OK**.
10. Click the filter arrow on **Desk**. Clear **Grand Total**. Click **OK**.
11. Click the header **Total**. Click **Home > Remove Columns**.



	Desk	Exception_Type	Oct 2025	Nov 2025	Dec 2025	Jan 2026
1	Equities Dealing	After-Hours	4	7	5	4
2	Equities Dealing	Off-Premise	2	0	1	1
3	Equities Dealing	Backdated	5	5	3	2
4	Fixed Income	After-Hours	1	2	1	3
5	Fixed Income	Off-Premise	4	2	1	0
6	Fixed Income	Backdated	17	17	14	17
7	FX Spot	After-Hours	1	5	8	5
8	FX Spot	Off-Premise	1	2	5	0
9	FX Spot	Backdated	1	4	2	6
10	Money Market	After-Hours	8	5	8	2
11	Money Market	Off-Premise	1	1	1	3
12	Money Market	Backdated	7	9	8	3

Figure 3: After Fill Down, Filtered Rows and Removed Columns. Each row has a Desk.

CHECK The status bar at the bottom left shows **14 columns, 15 rows** (5 desks x 3 exception types).

3.3 Unpivot the months

WHY THIS STEP Sub-question 1: the report has one column for each month. To filter, group and chart by month, time must be in one column.

1. Click the header **Desk**. Hold **Ctrl** and click the header **Exception_Type**.
2. Click **Transform > Unpivot Columns > Unpivot Other Columns**.
3. Double-click the header **Attribute**. Type `Month`. Push **Enter**.
4. Double-click the header **Value**. Type `Exceptions`. Push **Enter**.
5. Right-click the **Month** header. Click **Change Type > Using Locale**.
6. In **Data Type**, select **Date**. In **Locale**, select **English (United States)**. Click **OK**.
7. Click the **Exceptions** header. Click **Transform > Data Type > Whole Number**. If a **Change Column Type** dialog opens, click **Replace current**.

NOTE Using Locale tells Power Query how to read the text "Oct 2025". It works on all computers, whatever the regional settings.

CHECK The Month column shows a calendar icon in its header and dates such as 01/10/2025. It does not show Error.

3.4 Add two helper columns

YOUR TASK Look at sub-questions 2 and 3. Can the four columns Desk, Exception_Type, Month and Exceptions answer them in one PivotTable? What is missing?

SOLUTION No. To compare FX Spot with the other desks, you must add four desks by hand for each month. To compare before and after the pilot, you must select 7 months and then 5 months by hand each time. Two helper columns put these two comparisons into the data:
Desk_Group answers sub-question 3: FX Spot or Other 4 desks.
Period answers sub-question 2: Before pilot or After pilot.
You use them later in the PivotTable P2_Compare (3.7), the rate check (5.2) and the chart data (Part 3).

1. Click **Add Column > Custom Column**.
2. In **New column name**, type `Desk_Group`.
3. In **Custom column formula**, type `if [Desk] = "FX Spot" then "FX Spot" else "Other 4 desks"`. Click **OK**.
4. Click **Add Column > Custom Column** again. Name: `Period`.
5. Formula: `if [Month] >= #date(2026, 5, 1) then "After pilot" else "Before pilot"`. Click **OK**.
6. Click the type icon (ABC 123) on the left of the **Desk_Group** header. Select **Text**.
7. Do the same for the **Period** header.
8. In **Query Settings > Name**, type `Exceptions_Flat`. Push **Enter**.

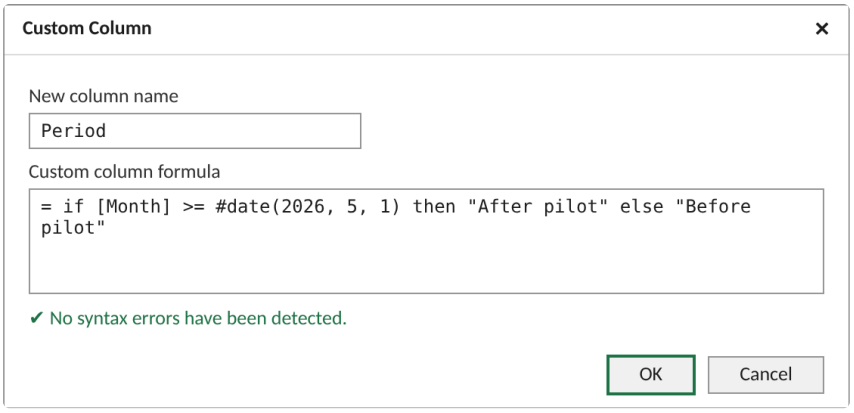
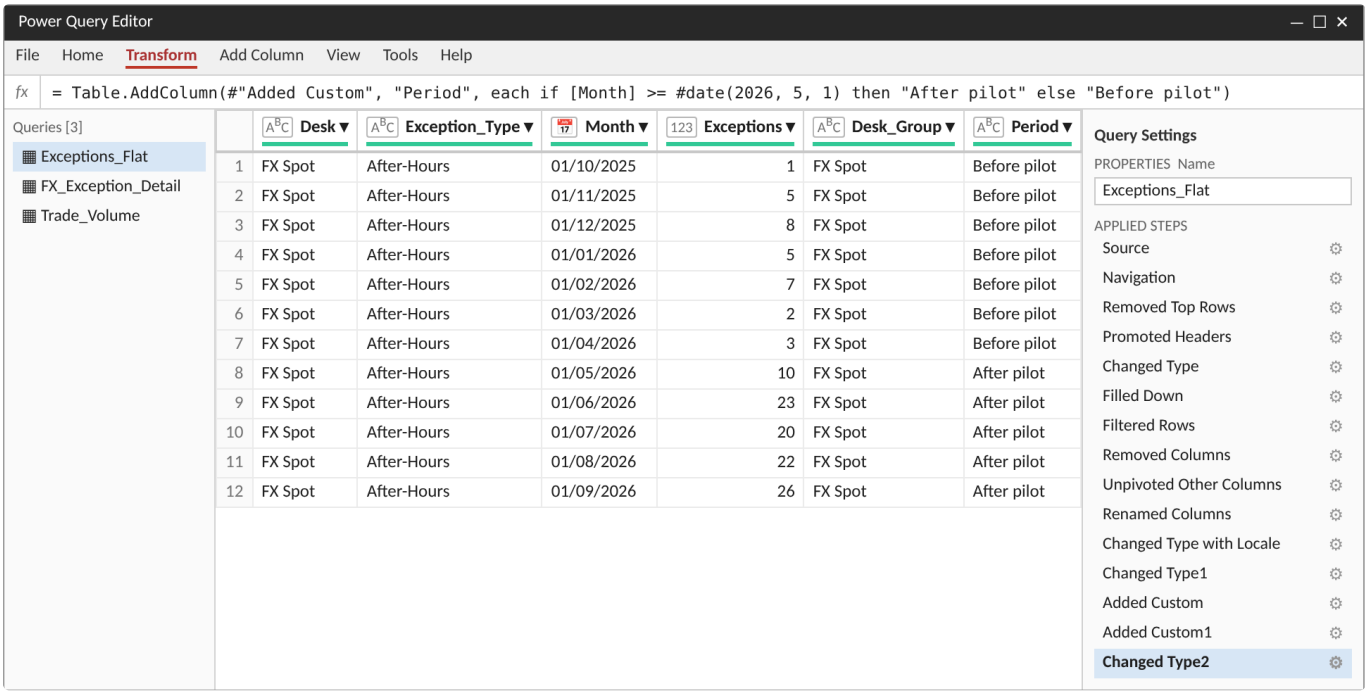


Figure 4: Custom Column dialog for Period.

NOTE Type the text in quotation marks exactly: "FX Spot", "Other 4 desks", "After pilot", "Before pilot". You use these words later in formulas.



	Desk	Exception_Type	Month	Exceptions	Desk_Group	Period
1	FX Spot	After-Hours	01/10/2025	1	FX Spot	Before pilot
2	FX Spot	After-Hours	01/11/2025	5	FX Spot	Before pilot
3	FX Spot	After-Hours	01/12/2025	8	FX Spot	Before pilot
4	FX Spot	After-Hours	01/01/2026	5	FX Spot	Before pilot
5	FX Spot	After-Hours	01/02/2026	7	FX Spot	Before pilot
6	FX Spot	After-Hours	01/03/2026	2	FX Spot	Before pilot
7	FX Spot	After-Hours	01/04/2026	3	FX Spot	Before pilot
8	FX Spot	After-Hours	01/05/2026	10	FX Spot	After pilot
9	FX Spot	After-Hours	01/06/2026	23	FX Spot	After pilot
10	FX Spot	After-Hours	01/07/2026	20	FX Spot	After pilot
11	FX Spot	After-Hours	01/08/2026	22	FX Spot	After pilot
12	FX Spot	After-Hours	01/09/2026	26	FX Spot	After pilot

Figure 5: Exceptions_Flat, the final flat table.

CHECK Exceptions_Flat has **6 columns, 180 rows** (15 × 12 months).

3.5 Examine the other two queries and load

> **WHY THIS STEP** Sub-question 5: Trade_Volume tests the other explanation, that FX Spot simply did more trades. Sub-question 6: FX_Exception_Detail shows who made the exceptions and how (location, recorded line).

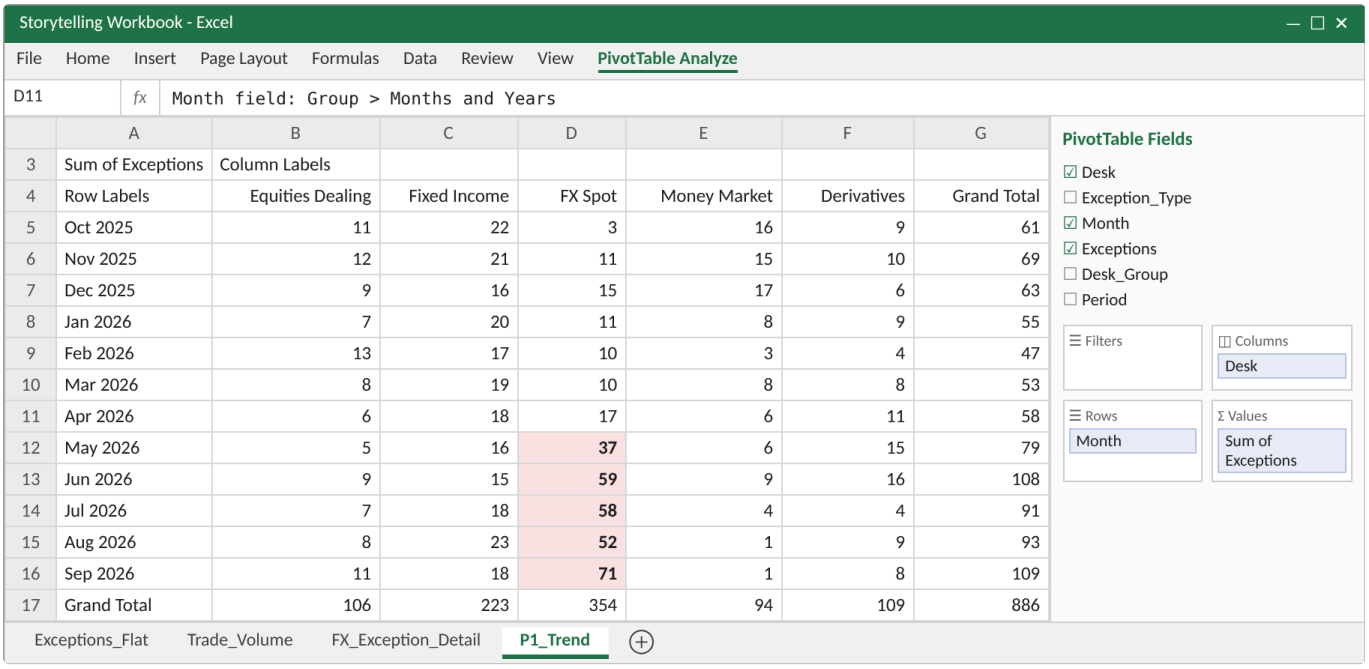
1. In the Queries pane, click **Trade_Volume**.
2. Make sure that the column headers are Desk, Month and Trades. If row 1 shows these words as data, click **Home > Use First Row as Headers**.
3. Click the **Month** header. Click **Transform > Data Type > Date**. If a **Change Column Type** dialog opens, click **Replace current**.
4. In the Queries pane, click **FX_Exception_Detail**.
5. Make sure that the column headers are Trade_ID, Trade_Date, Booking_Date, Booking_Time, Dealer_ID, Exception_Type, Location, Recorded_Line and Notional_USD. If not, click **Home > Use First Row as Headers**.
6. Click the **Trade_Date** header. Click **Transform > Data Type > Date**. If a dialog opens, click **Replace current**.
7. Click **Home > Close & Load** (click the arrow below the button) **> Close & Load To**.
8. In the Import Data dialog, select **Table** and **New worksheet**. Click **OK**.
9. Make sure that Excel made three sheets named Exceptions_Flat, Trade_Volume and FX_Exception_Detail. If a sheet has a different name, rename it.
10. Save the workbook.

> **CHECK** Data > Queries & Connections shows Exceptions_Flat (180 rows), Trade_Volume (60 rows) and FX_Exception_Detail (354 rows).

3.6 Baseline view 1: exceptions by month and desk

> **WHY THIS STEP** Answers sub-questions 1 and 3: the change over time for each desk.

1. Click any cell in the Exceptions_Flat table. Click **Insert > PivotTable**. Select **New Worksheet**. Click **OK**.
2. Rename the sheet to `P1_Trend`.
3. Drag **Month** to **Rows**. Right-click a date in the PivotTable. Click **Group**. Select **Months** and **Years** only. Click **OK**.
4. Drag **Desk** to **Columns**. Drag **Exceptions** to **Values**.



	A	B	C	D	E	F	G
3	Sum of Exceptions	Column Labels					
4	Row Labels	Equities Dealing	Fixed Income	FX Spot	Money Market	Derivatives	Grand Total
5	Oct 2025	11	22	3	16	9	61
6	Nov 2025	12	21	11	15	10	69
7	Dec 2025	9	16	15	17	6	63
8	Jan 2026	7	20	11	8	9	55
9	Feb 2026	13	17	10	3	4	47
10	Mar 2026	8	19	10	8	8	53
11	Apr 2026	6	18	17	6	11	58
12	May 2026	5	16	**37**	6	15	79
13	Jun 2026	9	15	**59**	9	16	108
14	Jul 2026	7	18	**58**	4	4	91
15	Aug 2026	8	23	**52**	1	9	93
16	Sep 2026	11	18	**71**	1	8	109
17	Grand Total	106	223	354	94	109	886

Figure 6: Exceptions by month and desk.

CHECK Grand Total = 886. FX Spot total = 354.

READ THE RESULT Use P1_Trend to answer sub-question 1 (did exceptions change over time?) and sub-question 3 (only FX Spot, or all desks?). Write a short answer with numbers in the worksheet.

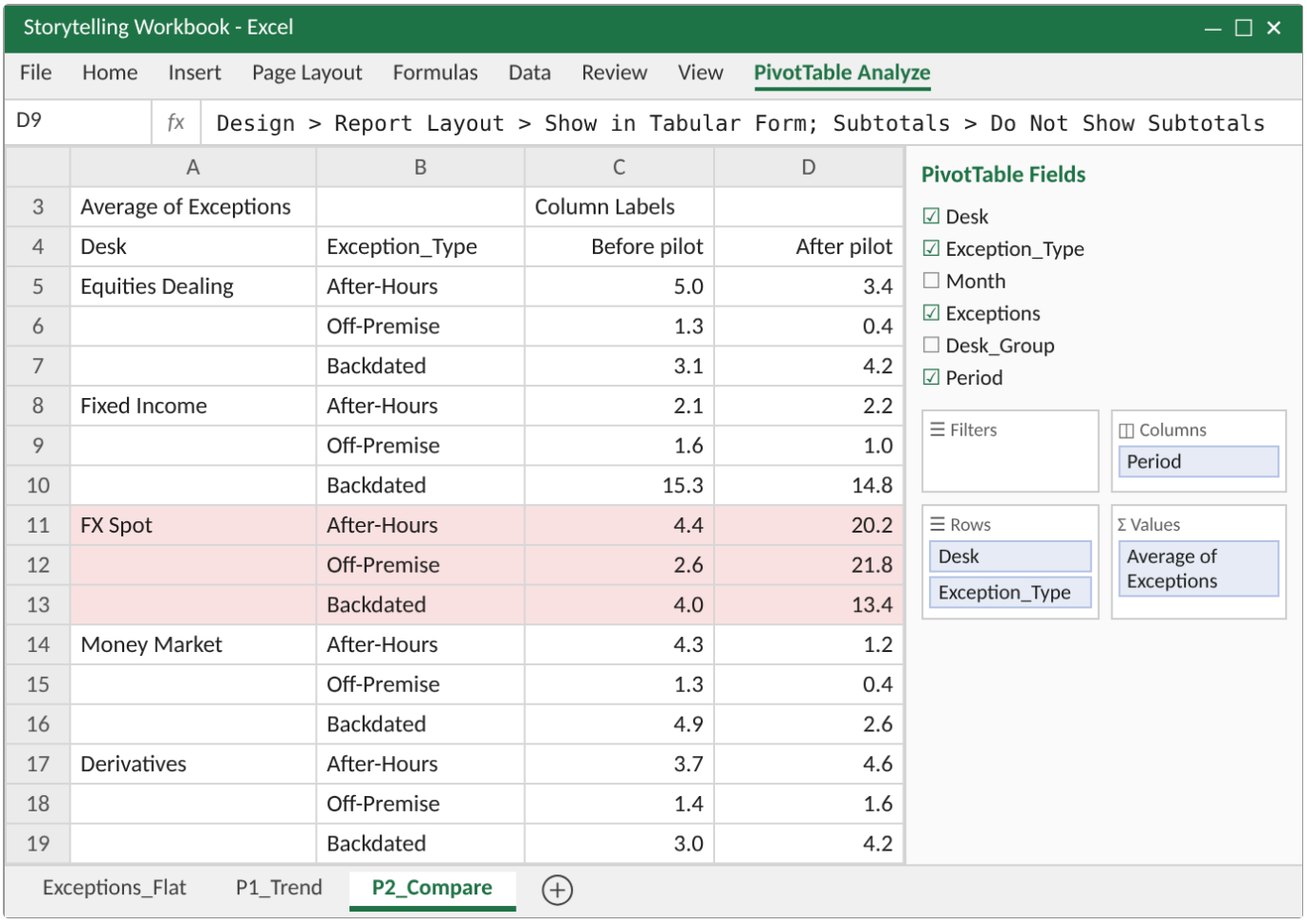
SOLUTION **Sub-question 1:** Yes. The bank total went from 61 a month in October 2025 to 109 in September 2026.
Sub-question 3 (first look): The change is in one desk. FX Spot was 3 to 17 a month from October to April, then 37 to 71 from May to September. Equities Dealing and Fixed Income stay in the same range. Derivatives has two higher months (15 in May and 16 in June 2026), then goes back to its normal range of 4 to 11. Money Market goes down after January 2026.

3.7 Baseline view 2: before vs after the pilot

WHY THIS STEP Answers sub-questions 2 and 3: before vs after, desk by desk, type by type.

1. Make a new PivotTable from Exceptions_Flat on a new sheet. Name the sheet `P2_Compare`.
2. Drag **Desk** to **Rows**. Drag **Exception_Type** to **Rows**, below Desk.
3. Drag **Period** to **Columns**. Drag **Exceptions** to **Values**.
4. Click **Sum of Exceptions** in Values. Click **Value Field Settings**. Select **Average**. Click **Number Format**. Select **Number**, 1 decimal place. Click **OK** two times.
5. Click **Design > Subtotals > Do Not Show Subtotals**.
6. Click **Design > Grand Totals > Off for Rows and Columns**.
7. Click **Design > Report Layout > Show in Tabular Form**.
8. Right-click the header **Before pilot**. Click **Move > Move "Before pilot" to Beginning**.

NOTE The value is the average number of exceptions for one exception type in one month. Before the pilot = 7 months. After the pilot = 5 months.



	A	B	C	D
3	Average of Exceptions		Column Labels	
4	Desk	Exception_Type	Before pilot	After pilot
5	Equities Dealing	After-Hours	5.0	3.4
6		Off-Premise	1.3	0.4
7		Backdated	3.1	4.2
8	Fixed Income	After-Hours	2.1	2.2
9		Off-Premise	1.6	1.0
10		Backdated	15.3	14.8
11	FX Spot	After-Hours	4.4	20.2
12		Off-Premise	2.6	21.8
13		Backdated	4.0	13.4
14	Money Market	After-Hours	4.3	1.2
15		Off-Premise	1.3	0.4
16		Backdated	4.9	2.6
17	Derivatives	After-Hours	3.7	4.6
18		Off-Premise	1.4	1.6
19		Backdated	3.0	4.2

Figure 7: Average exceptions a month, before and after the pilot.

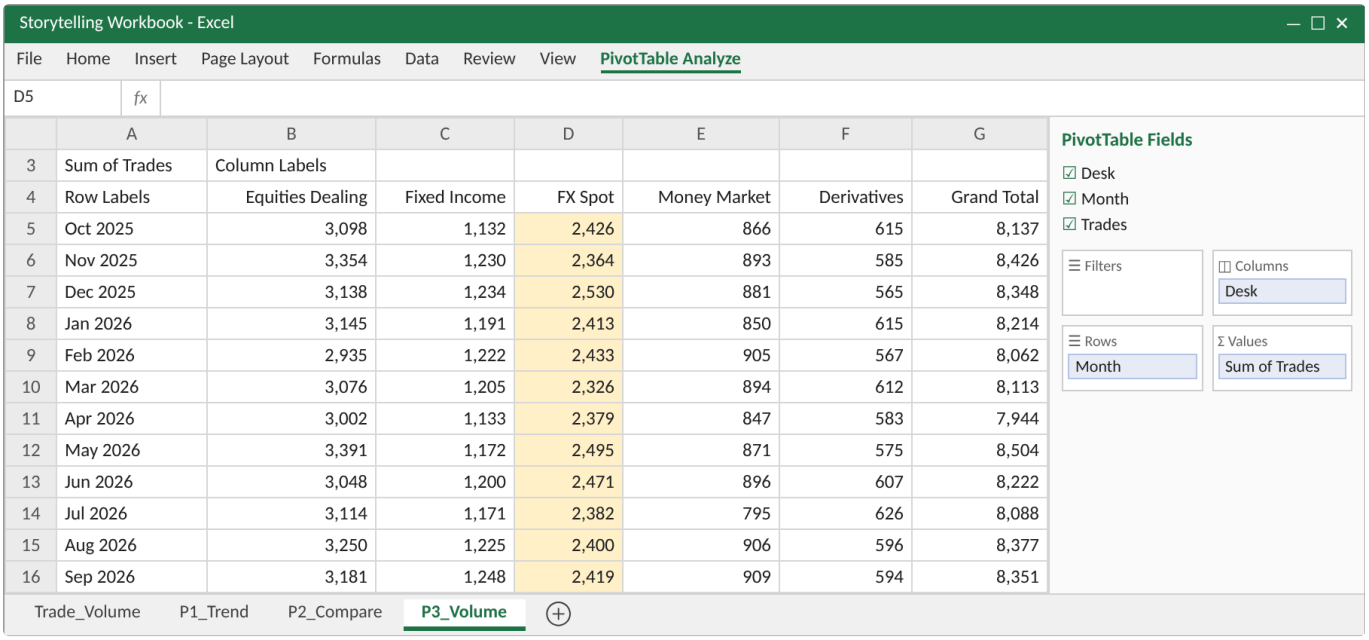
READ THE RESULT Use P2_Compare to answer sub-question 2 (did exceptions change after the pilot started?). Add the three averages of each desk to get the total a month.

SOLUTION **Sub-question 2:** Yes, for FX Spot only. FX Spot: 11.0 a month before the pilot, 55.4 after. All three exception types rise, and Off-Premise rises most (2.6 to 21.8). The other four desks together: 47.0 before, 40.6 after.

3.8 Baseline view 3: trade volume

WHY THIS STEP Answers sub-question 5: did the number of trades change?

1. Make a new PivotTable from Trade_Volume on a new sheet. Name the sheet `P3_Volume`.
2. Drag **Month** to **Rows**. Group it by **Months** and **Years**.
3. Drag **Desk** to **Columns**. Drag **Trades** to **Values**.



	A	B	C	D	E	F	G
3	Sum of Trades	Column Labels					
4	Row Labels	Equities Dealing	Fixed Income	FX Spot	Money Market	Derivatives	Grand Total
5	Oct 2025	3,098	1,132	2,426	866	615	8,137
6	Nov 2025	3,354	1,230	2,364	893	585	8,426
7	Dec 2025	3,138	1,234	2,530	881	565	8,348
8	Jan 2026	3,145	1,191	2,413	850	615	8,214
9	Feb 2026	2,935	1,222	2,433	905	567	8,062
10	Mar 2026	3,076	1,205	2,326	894	612	8,113
11	Apr 2026	3,002	1,133	2,379	847	583	7,944
12	May 2026	3,391	1,172	2,495	871	575	8,504
13	Jun 2026	3,048	1,200	2,471	896	607	8,222
14	Jul 2026	3,114	1,171	2,382	795	626	8,088
15	Aug 2026	3,250	1,225	2,400	906	596	8,377
16	Sep 2026	3,181	1,248	2,419	909	594	8,351

Figure 8: Number of trades by month and desk.

READ THE RESULT Use P3_Volume to answer sub-question 5 (is the rise only because of more trades?).

SOLUTION **Sub-question 5:** No. FX Spot booked about the same number of trades each month: 2,410 a month before the pilot and 2,433 after. More trades do not explain the rise.

DISCOVER | STEP 4

Hunt for patterns: SCAN

NOTE In Step 3, each PivotTable answered one sub-question. In Step 4, look across all the answers together and name the patterns. SCAN also gives a new view (A: Anomalies) that answers sub-question 6.

Letter	Look for	Where to look
S	Spikes and drops: sudden changes	P1_Trend
C	Comparisons: before vs after, desk vs desk	P2_Compare
A	Anomalies: outliers, unexpected behaviour	New PivotTable P4_Dealers
N	No-change: where you expected change but did not see it	P3_Volume and P2_Compare

S: Spikes and drops

1. Click the sheet **P1_Trend**.
2. Read the FX Spot column from top to bottom. Find the month where the value changes sharply.
3. Read the Money Market column. Find the month where it changes.

YOUR TASK Which desk has a spike? In which month does it start? Which desk has a drop, and when?

SOLUTION FX Spot rises sharply from May 2026 (37), the month the pilot started, to 71 in September 2026. Money Market drops from January 2026, the month the new booking system went live.

C: Comparisons

1. Click the sheet **P2_Compare**.
2. For each desk, add the three averages in the Before pilot column. Do the same for After pilot.
3. Compare FX Spot with the other desks.

YOUR TASK How many exceptions a month does FX Spot have before and after the pilot? What about the other desks? Which exception type grows most?

SOLUTION FX Spot: 11.0 a month before, 55.4 after (5.0 times). The other four desks together: 47.0 before, 40.6 after (no rise). In FX Spot, Off-Premise grows most: 2.6 to 21.8 a month.

A: Anomalies

WHY THIS STEP Answers sub-question 6: who made the exceptions, and how?

1. Click any cell in the FX_Exception_Detail table. Make a new PivotTable on a new sheet. Name the sheet `P4_Dealers`.
2. Drag **Trade_Date** to **Filters**. Open the filter in cell B1. Select **Select Multiple Items**. Clear all dates before 1 May 2026. Click **OK**.
3. Drag **Dealer_ID** to **Rows**. Drag **Recorded_Line** to **Columns**. Drag **Trade_ID** to **Values** (Count).
4. Click a value in the Grand Total column. Click **Data > Sort Largest to Smallest**.

NOTE If the Trade_Date filter list shows years and months, expand 2026 and select May to September only.

Storytelling Workbook - Excel

File Home Insert Page Layout Formulas Data Review View PivotTable Analyze

A5 | fx | Sorted by Grand Total, largest to smallest

	A	B	C	D
1	**Trade_Date**	(Multiple Items)		
2				
3	Count of Trade_ID	Column Labels		
4	Row Labels	No	Yes	Grand Total
5	**FX11**	**46**	**17**	**63**
6	**FX07**	**38**	**19**	**57**
7	**FX03**	**35**	**17**	**52**
8	FX05	12	6	18
9	FX12	10	7	17
10	FX08	6	7	13
11	FX01	10	2	12
12	FX02	9	2	11
13	FX09	8	3	11
14	FX04	6	4	10
15	FX10	4	4	8
16	FX06	3	2	5
17	Grand Total	187	90	277

PivotTable Fields

- ☑ Trade_ID
- ☑ Trade_Date
- ☑ Dealer_ID
- ☐ Exception_Type
- ☐ Location
- ☑ Recorded_Line
- ☐ Notional_USD

Filters: Trade_Date (May-Sep 2026)

Columns: Recorded_Line

Rows: Dealer_ID

Σ Values: Count of Trade_ID

FX_Exception_Detail P3_Volume P4_Dealers

Figure 9: FX Spot exceptions after the pilot, by dealer and recorded line.

YOUR TASK How many FX Spot exceptions after the pilot were not on a recorded line? Which dealers make most of the exceptions?

SOLUTION 187 of 277 exceptions were not on a recorded line. Three dealers (FX11, FX07, FX03) made 62% of the exceptions. Before the pilot, the same three dealers made only 23 of 77 exceptions (30%).

N: No-change

1. Click the sheet **P3_Volume**. Read the FX Spot column.
2. Click the sheet **P2_Compare**. Read Fixed Income, Backdated. Read the Read_Me note about the Fixed Income action plan.

YOUR TASK Did FX Spot trade volume change after the pilot? Did Fixed Income backdated trades fall after the action plan was closed on 31 March 2026?

SOLUTION FX Spot volume did not change: 2,410 trades a month before, 2,433 after. So more trades do not explain the rise. Fixed Income backdated trades stayed at 14 to 17 a month all year. The action plan did not change the result.

DISCOVER | STEP 5

Validate and refine

5.1 Does the math check out?

WHY THIS STEP Answers sub-question 4: are the numbers correct?

1. Add a new sheet. Name it `Tie_Out`.
2. In B2, type the Grand Total from Step 2 (886).
3. In B3, type `=SUM(Exceptions_Flat[Exceptions])`.
4. In B4, type `=SUMIFS(Exceptions_Flat[Exceptions], Exceptions_Flat[Desk], "FX Spot")`.
5. In B5, type `=ROWS(FX_Exception_Detail)`.
6. In B6, type `=B2-B3`. In B7, type `=B4-B5`.

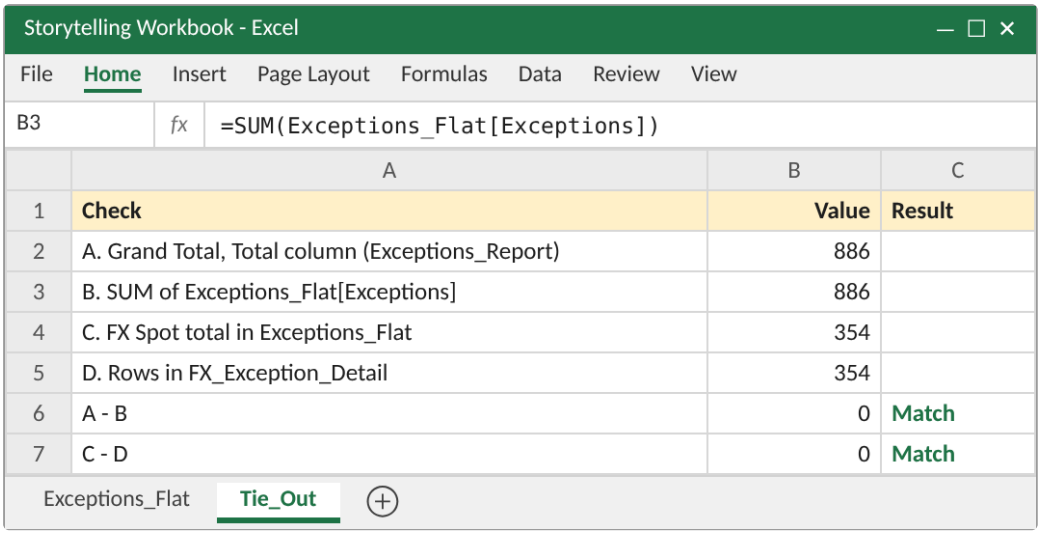


Figure 10: Tie-out.

CHECK B6 = 0 and B7 = 0. The flat table and the detail agree with the report.

5.2 Is the rise real? Use a rate

1. In B9, type `=SUMIFS(Exceptions_Flat[Exceptions], Exceptions_Flat[Desk_Group], "FX Spot", Exceptions_Flat[Period], "Before pilot") / SUMIFS(Trade_Volume[Trades], Trade_Volume[Desk], "FX Spot", Trade_Volume[Month], "<"&DATE(2026,5,1)) * 1000`.
2. In B10, type the same formula with `"After pilot"` and `">="&DATE(2026,5,1)`.

CHECK B9 = 4.6 and B10 = 22.8 exceptions for each 1,000 FX Spot trades.

5.3 Is there a valid reason?

Pattern	Valid business reason?	Result
FX Spot rise	No. Volume is flat. The rise starts with the pilot. Most exceptions are from Home and not recorded.	Finding
Money Market drop	Yes. New booking system on 1 January 2026.	Good news, not a problem
Fixed Income backdated, no change	No. The action plan was reported as complete.	Finding

5.4 Complete the sub-question tracker

YOUR TASK Collect the answers to all sub-questions in one table. Use the answers from Steps 3, 4 and 5.

SOLUTION

No.	Sub-question	Answer	Source
1	Did exceptions change over time?	Yes. 61 a month (Oct 2025) to 109 (Sep 2026).	P1_Trend
2	Did they change after the pilot started?	Yes. FX Spot 11 to 55 a month (5 times).	P2_Compare
3	Only FX Spot, or all desks?	Only FX Spot. Other 4 desks: 47 to 41 a month. Money Market fell after its new system.	P1_Trend, P2_Compare
4	Are the numbers correct?	Yes. All tie-outs are 0.	Tie_Out B6, B7
5	Is the rise only because of more trades?	No. Volume is flat. Rate: 4.6 to 22.8 exceptions for each 1,000 trades.	P3_Volume, Tie_Out B9, B10
6	Who made the exceptions, and how?	Mostly from Home. 187 of 277 not on a recorded line. Three dealers made 62%.	P4_Dealers
7	Is it safe to extend the pilot?	No, not until recorded-line controls work.	Insight 1

5.5 Write the insights

[WHAT happened] + [WHY it matters] + [WHAT to do about it]

YOUR TASK Write three insights in the worksheet. Use the formula above. Then compare with the solutions.

SOLUTION

Insight 1: FX Spot exceptions after the work-from-home pilot	
WHAT happened	Since the work-from-home pilot started on 1 May 2026, FX Spot trade exceptions rose from an average of 11 to 55 a month (5 times). Trade volume did not change (about 2,400 trades a month). From June 2026, FX Spot has more exceptions than the other four desks combined.
WHY it matters	187 of the 277 FX Spot exceptions since May were not on a recorded line (USD 260 million notional). This breaks the Dealing Room Policy and the pilot condition. Three dealers (FX11, FX07, FX03) made 62% of all FX Spot exceptions since May. Management plans to extend the pilot to all five desks on 1 January 2027.
WHAT to do	Pause the 1 January 2027 rollout. Block trade booking from devices that are not on a recorded line. Review the trades of the three dealers. Restart the rollout only when FX Spot exceptions return to the pre-pilot level.
One sentence: FX Spot exceptions rose five times after the work-from-home pilot, mostly on unrecorded lines, so pause the rollout to all desks until recorded-line controls work.	

Insight 2: Fixed Income backdated trades	
WHAT happened	Fixed Income backdated trades stayed at 14 to 17 a month for all 12 months. The average was 15.5 a month before and 14.7 a month after the action plan was reported as complete on 31 March 2026.
WHY it matters	The 2025 audit action plan did not fix the problem. This is a repeat finding, and the action plan status in the tracker is not correct.
WHAT to do	Reopen the action plan. Ask Fixed Income to find the root cause of late booking and give a new due date. Correct the status in the audit tracker.
One sentence: Fixed Income backdated trades did not fall after the action plan was closed, so reopen it and correct the tracker.	

Insight 3: Money Market after the new booking system	
WHAT happened	Money Market exceptions fell from an average of 16 to 5 a month (68% lower) after the new booking system went live on 1 January 2026.
WHY it matters	The system control works. It is a good model for other desks.
WHAT to do	Use the same booking control for FX Spot when you fix the pilot controls.
One sentence: The new Money Market booking system cut exceptions by two thirds, so use the same control in FX Spot.	

PART 2

Develop

Data > Story > Visual. Select the insight for the Story Space, then craft the story with 3C.

2.1 Select insights for the Story Space

Not every insight needs a data story. Put each insight on two scales.

Scale	Easy / Low	Hard / High
Insight complexity	Standard, anticipated, favorable, basic, inexpensive or safe	Alternative, unexpected, unfavorable, complicated, costly or risky
Insight value	Small effect on decisions, money or risk	Large effect on decisions, money or risk

NOTE Hard complexity + mid to high value = a data story is required. This is the Story Space.

1. For each insight, write two or three words from the complexity list that describe it.
2. Give each insight a value: Low, Mid or High.
3. Put each insight in one box of the matrix.

YOUR TASK Which insight goes into the Story Space? What do you do with the other two?

SOLUTION

Insight	Complexity	Value	Box
1 FX Spot exceptions	Hard: unexpected, unfavorable, complicated, risky	High: rollout decision, unrecorded trades, regulatory risk	**Story Space**
2 Fixed Income backdated	Easy: anticipated (repeat issue), basic	Mid to high: open audit issue	Easy + mid to high: report it as a finding
3 Money Market drop	Easy: favorable, anticipated, safe	Low to mid	Easy + low: mention it



Figure 11: The three insights on the Story Space matrix.

2.2 The 3C: Crowd

Know your crowd before you write. The same insight needs a different story for a different crowd.

1. Read section 3 of the use case (The meeting).
2. Answer the six crowd questions in the worksheet.

> **YOUR TASK** Who is the main crowd? What do they know? What do they care about? What decision must they make? What objection can they have? How do they like to get information?

SOLUTION

Question	Answer
Who	Head of Treasury & Markets (decides the rollout). Also in the room: Chief Compliance Officer, Chief Internal Auditor.
What they know	Markets and dealing very well. They do not read surveillance data each month.
What they care about	Dealer productivity and staff retention, and no regulatory problems for the desk.
Decision	Go ahead with or pause the 1 January 2027 rollout.
Possible objection	"Dealers like the pilot. Exceptions are only admin errors."
How they like information	10 minutes, one page, one clear chart, a clear ask.

2.3 The 3C: Content with S.T.O.R.Y

Write one or two sentences for each letter. Use simple words. Use numbers from Discover.

Letter	Meaning	Question to answer
S	Situation	What is the normal state? What does the crowd already know?
T	Take Off	What changed? What is the surprise in the data?
O	Opportunity	Why is now the right time to act?
R	Resolution	What must we do?
Y	Yield	What do we get if we do it? What happens if we do not?

YOUR TASK Write the S.T.O.R.Y script for Insight 1 in the worksheet.

SOLUTION

Letter	Script
S Situation	In May 2026, Treasury started a work-from-home pilot for the FX Spot desk. Management plans to extend it to all five desks on 1 January 2027.
T Take Off	Since the pilot started, FX Spot trade exceptions rose five times, from 11 to 55 a month. The number of trades did not change. From June, FX Spot alone has more exceptions than the other four desks together.
O Opportunity	The pilot is still small: one desk and twelve dealers. 187 exceptions were not on a recorded line, and three dealers made 62% of all exceptions since May. We can fix the controls now, before five desks work from home.
R Resolution	Pause the rollout. Block trade booking from devices that are not on a recorded line. Review the trades of the three dealers. Use the Money Market booking control as a model.
Y Yield	Exceptions return to the pre-pilot level and every trade has a recorded line. The rollout can then go ahead safely. If we do nothing, five desks can repeat the FX Spot result.

2.4 The 3C: Core (main point)

Problem + Stakes + Steps + Call to Action

Part	Question
Problem	What is wrong, in one sentence?
Stakes	What can we lose? Use a number.
Steps	What are the 2 or 3 actions?
Call to Action	What must the crowd decide or do today?

YOUR TASK Write the core message for Insight 1. Keep it to four sentences.

SOLUTION

Part	Core message
Problem	FX Spot exceptions rose five times after the work-from-home pilot, and most of them were not on a recorded line.
Stakes	USD 260 million of trades have no recorded conversation, against the Dealing Room Policy. A rollout to five desks can multiply this risk.
Steps	Block booking from unrecorded devices. Review the three dealers. Restart the rollout when exceptions return to the pre-pilot level.
Call to Action	Please approve a pause of the 1 January 2027 rollout today.

NOTE The core message is the one thing the crowd must remember. Say it first in the meeting. The chart must prove it.

PART 3

Design

Data > Story > Visual. Choose the data story type and the chart, then write the hybrid title.

3.1 Choose the type of data story

Type	The story shows	Good charts
Rankings	Which item is first and last	Bar, dot
Distributions	How values spread	Histogram, box plot
Proportions	Parts of a whole	Donut, bar, stacked bar, treemap
Correlations	How two measures move together	Scatter, line, heatmap, bubble
Comparisons	Differences between items	Bar, line, donut, stacked bar
Change over time	How a value moves over time	Line, area, bar, scatter, heatmap

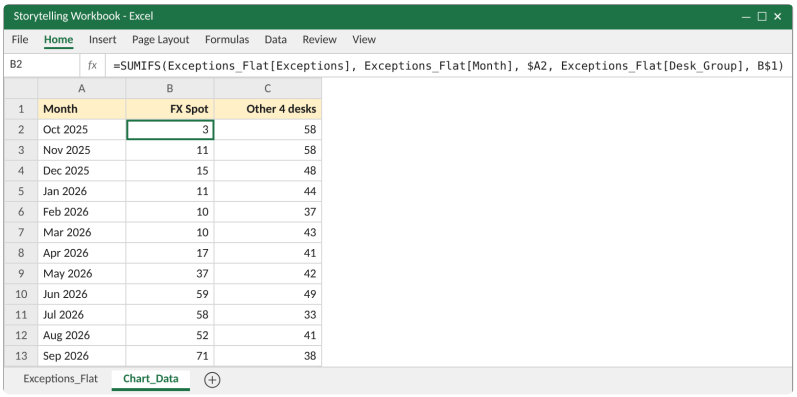
YOUR TASK Which type of data story is Insight 1? Which chart will you use? Why?

SOLUTION **Change over time.** The story is about what happened before and after 1 May 2026. Use a **line chart** with two lines: FX Spot and the other four desks combined. The crowd sees the jump at the pilot date and the point where FX Spot passes the other desks. A vertical line marks the pilot start.

3.2 Make the chart data

1. Add a new sheet. Name it `Chart_Data`.
2. In A1, type `Month`. In B1, type `FX Spot`. In C1, type `Other 4 desks`.
3. In A2, type `=DATE(2025,10,1)`. In A3, type `=EDATE(A2,1)`.
4. Copy A3 down to A13.
5. Select A2:A13. Push **Ctrl + 1**. Click **Custom**. Type `mmm yy`. Click **OK**.
6. In B2, type `=SUMIFS(Exceptions_Flat[Exceptions], Exceptions_Flat[Month], $A2, Exceptions_Flat[Desk_Group], B$1)`.
7. Copy B2 to C2. Then copy B2:C2 down to row 13.

CAUTION The text in B1 and C1 must be the same as the Desk_Group values: `FX Spot` and `Other 4 desks`. If not, the formula shows 0.



	A	B	C
1	Month	FX Spot	Other 4 desks
2	Oct 2025	3	58
3	Nov 2025	11	58
4	Dec 2025	15	48
5	Jan 2026	11	44
6	Feb 2026	10	37
7	Mar 2026	10	43
8	Apr 2026	17	41
9	May 2026	37	42
10	Jun 2026	59	49
11	Jul 2026	58	33
12	Aug 2026	52	41
13	Sep 2026	71	38

Figure 12: Chart_Data. B and C use SUMIFS on Exceptions_Flat.

CHECK B13 = 71 and C13 = 38. B9 (May 26) = 37.

3.3 Insert the chart

1. Select A1:C13.
2. Click **Insert > Insert Line or Area Chart > Line**.
3. Drag the chart to the right of the table.



Figure 13: The default Excel line chart. It has a topic title, a legend, gridlines and two equal colours.

3.4 Write the hybrid title

Insight + Call to Action + Legends

Part	What it does	Rule
Insight (headline)	States the finding	One sentence. Use a number word. Not a topic like "Exceptions trend".
Call to Action (subtitle)	Tells the crowd what to do	Start with a verb: Please approve, Please pause.
Legends	Replace the legend box	Colour the series names in the headline with the same colour as their lines.

YOUR TASK Write the headline and the call to action for the chart.

SOLUTION **Headline:** **FX Spot** trade exceptions rose five times after the work-from-home pilot and now exceed the **other 4 desks combined**.
Call to action: Please pause the 1 January 2027 rollout to all desks until every home trade is on a recorded line.
Support line: 187 of 277 FX Spot exceptions since May were not on a recorded line (USD 260 million notional). Trade volume did not change.

PART 4

Drive

Minimize chart junk. Use design thinking: clean sans-serif font, a colour wheel scheme. Add the hybrid title.

4.1 Minimize chart junk

1. Click the legend. Push **Delete**.
2. Click a horizontal gridline. Push **Delete**.
3. Click the chart title. Push **Delete**. The hybrid title will replace it.
4. Double-click the vertical axis. In **Axis Options**, set **Minimum** to `0`, **Maximum** to `80` and **Major** to `20`.
5. In the same pane, click **Fill & Line > Line > No line**.

4.2 Use design thinking: colour and font

> **NOTE** Use a monochromatic base (greys) for context and one complementary colour (orange) for the message. Orange and blue-grey are opposite on the colour wheel, so the eye goes to orange first.

1. Right-click the **Other 4 desks** line. Click **Format Data Series**.
2. Click **Fill & Line > Line > Solid line**. Set **Color > More Colors > Hex** to `9AA5B1`. Set **Width** to `2.25 pt`.
3. Click the **FX Spot** line. Set the colour to Hex `E97132` and the width to `3.5 pt`.
4. Click the chart border to select the chart area. Click **Home**. Set the font to **Segoe UI** and the size to 10.

Put labels at the end of the lines

1. Click the FX Spot line one time. Then click the last point (Sep 26) one more time. Only that point is selected.
2. Right-click the point. Click **Add Data Label**.
3. Right-click the label. Click **Format Data Labels**. Select **Series Name** and **Value**. Set **Separator** to **(space)** and **Label Position** to **Right**.
4. Make the label bold and orange.
5. Do steps 1 to 4 for the Other 4 desks line. Make its label grey.

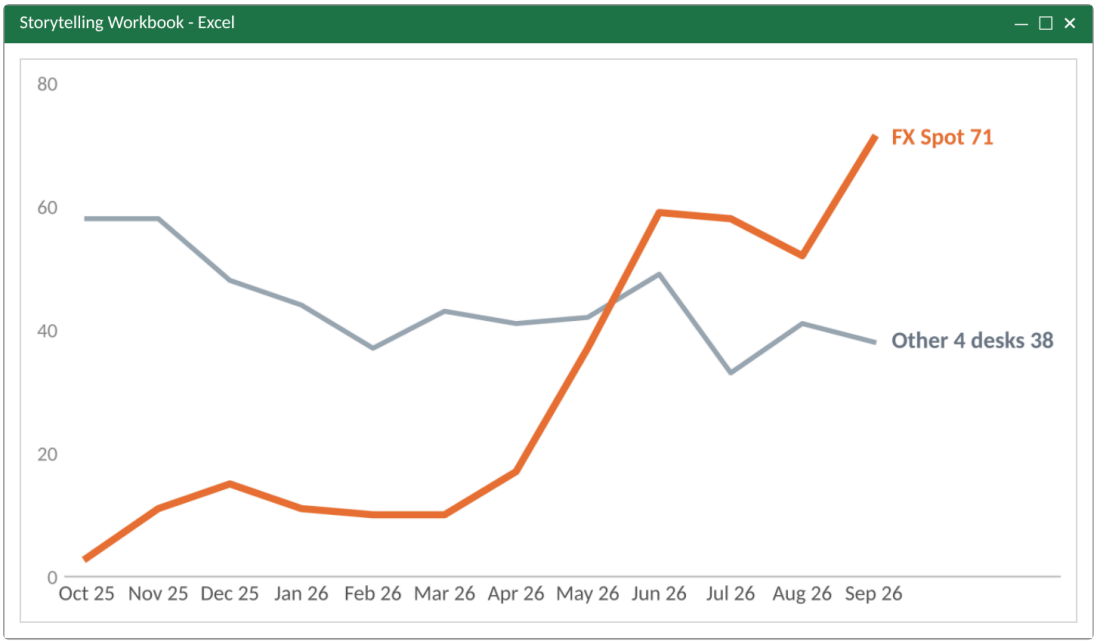


Figure 14: After Drive steps 4.1 and 4.2. No legend, no gridlines, one highlight colour, labels at the line ends.

4.3 Add the hybrid title and the annotations

1. Click the plot area. Drag its top edge down to make space at the top of the chart.
2. Make sure that the chart is selected. Click **Insert > Text Box**. Draw the text box across the top of the chart.
3. Type the headline, the call to action and the support line from Part 3.4. Push **Enter** after each line.
4. Set the headline to 16 pt bold, dark grey. Set the call to action to 12 pt bold. Set the support line to 10 pt, grey.
5. In the headline, select the words `FX Spot`. Set the font colour to Hex `E97132`. Select `other 4 desks combined`. Set the font colour to Hex `6B7785`.
6. Optional: click **Shape Format > Shape Outline**. Select orange and **Dashes**.

> **NOTE** The coloured words in the headline are the legend. The crowd reads the message and the legend in one place.

7. Make sure that the chart is selected. Click **Insert > Shapes > Line**.
8. Hold **Shift** and draw a vertical line at May 26, from the top of the plot area to the horizontal axis.
9. Click **Shape Format > Shape Outline**. Select dark grey, **Weight** 1 pt and **Dashes**.
10. Insert a text box next to the line. Type `1 May 2026: work-from-home pilot starts for FX Spot`. Set it to 9 pt.
11. Insert a text box near Jun 26. Type `Jun 2026: FX Spot passes the other 4 desks combined`. Add an arrow from **Insert > Shapes > Arrow** to the Jun 26 point.
12. Insert a text box at the bottom. Type the source: `Source: Trade surveillance report and FX exception detail, Oct 2025 to Sep 2026.` Set it to 8 pt, grey.
13. Click the chart. Click **Shape Format > Size**. Set the height to 12 cm and the width to 20 cm.

> **CAUTION** Select the chart before you insert a shape or a text box. Then the shape is part of the chart and moves with it.

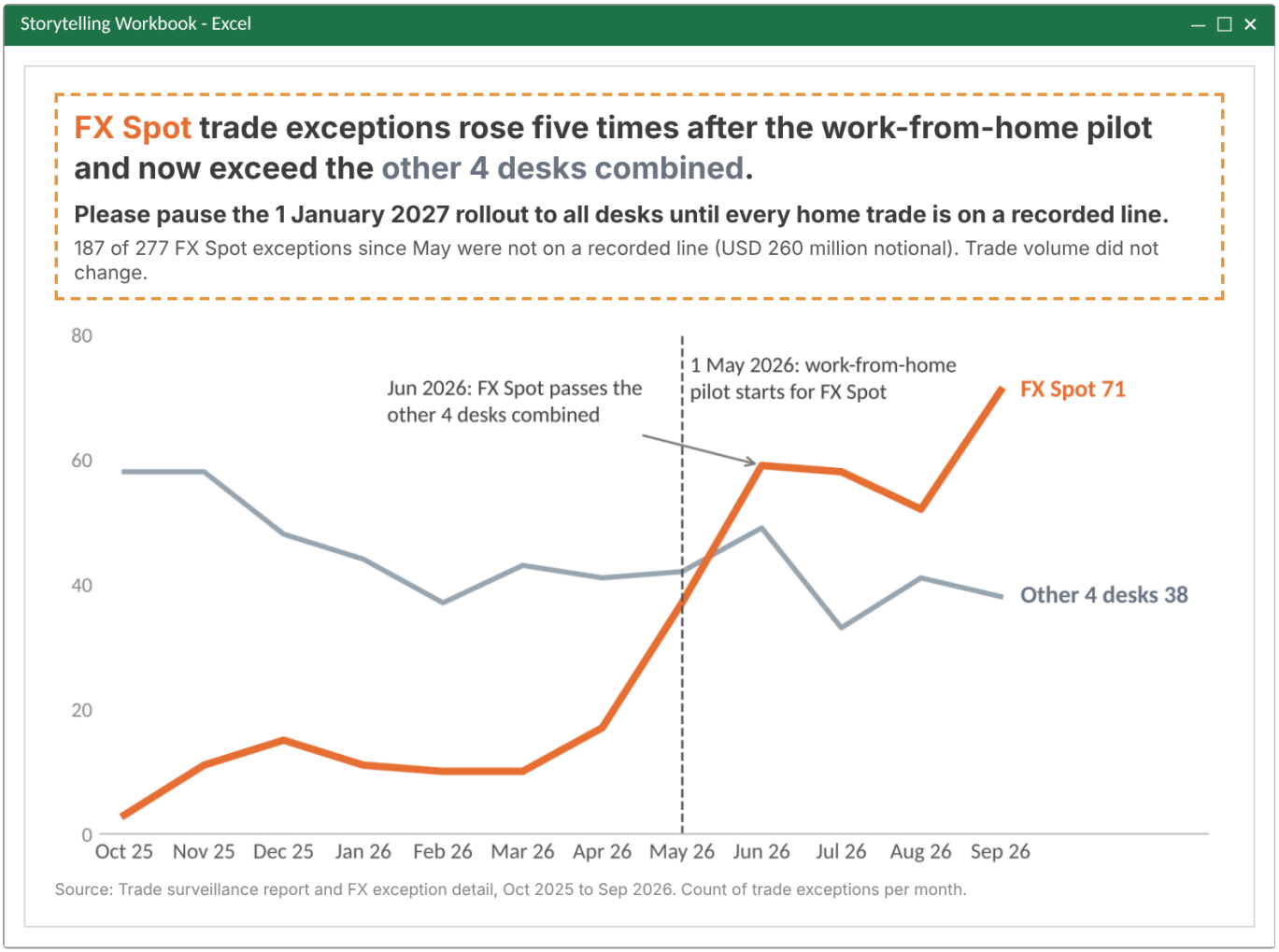


Figure 15: The final data story. Hybrid title (insight + call to action + legend words), one highlight colour, annotations and a source.

4.4 Final check

Check	Yes / No
The headline states the insight, not a topic.	
The subtitle asks for one clear action.	
The coloured words in the headline match the line colours. There is no legend box.	
There are no gridlines, no chart border clutter, no 3D and no extra colours.	
The pilot date and the cross-over point have short annotations.	
The source is on the chart.	
You can tell the S.T.O.R.Y in 2 minutes with this one chart.	

NOTE To present, copy the chart into one PowerPoint slide. Say the core message first. Then show the chart.