

# Capstone Project

Analysis on Wealth Management

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# Problem Statement

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The Bank would like to better understand European customers' behavior towards wealth management products in the recent years. The Bank has engaged Vertical Institute to perform an analysis and to advise on the business recommendations.

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# Data Acquisition

## a. Data Source

- <https://www.kaggle.com/rgupt44/wealth-management-customer-data>
- A dataset of 10,000 customers that bought wealth management products with the Bank.

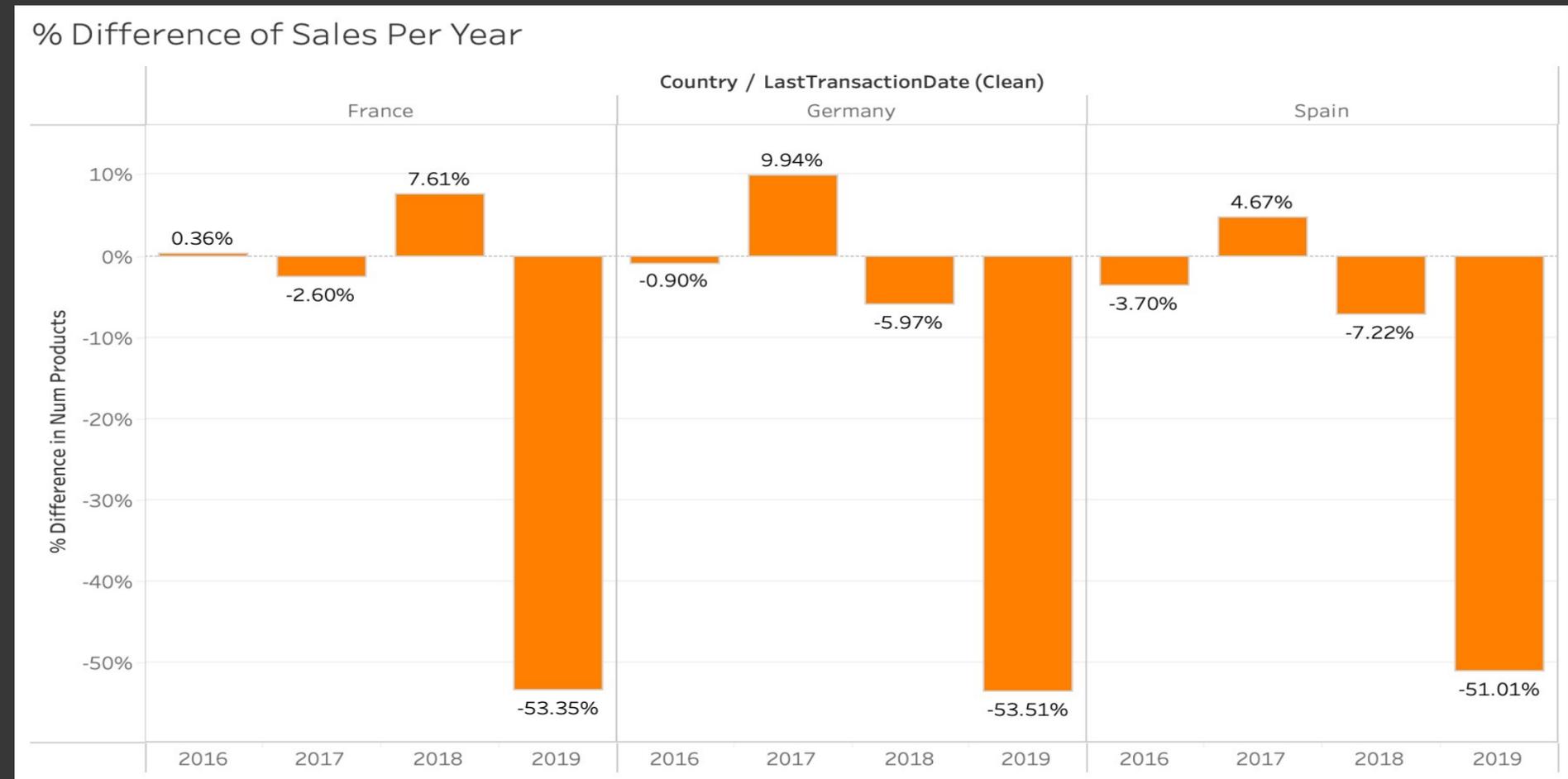
## b. Data Cleaning

- Usage of Excel formulas such as LEFT, MID, RIGHT and CONCATENATE to align the date format of all values under "LastTransactionDate" column to dd/mm/yy format.

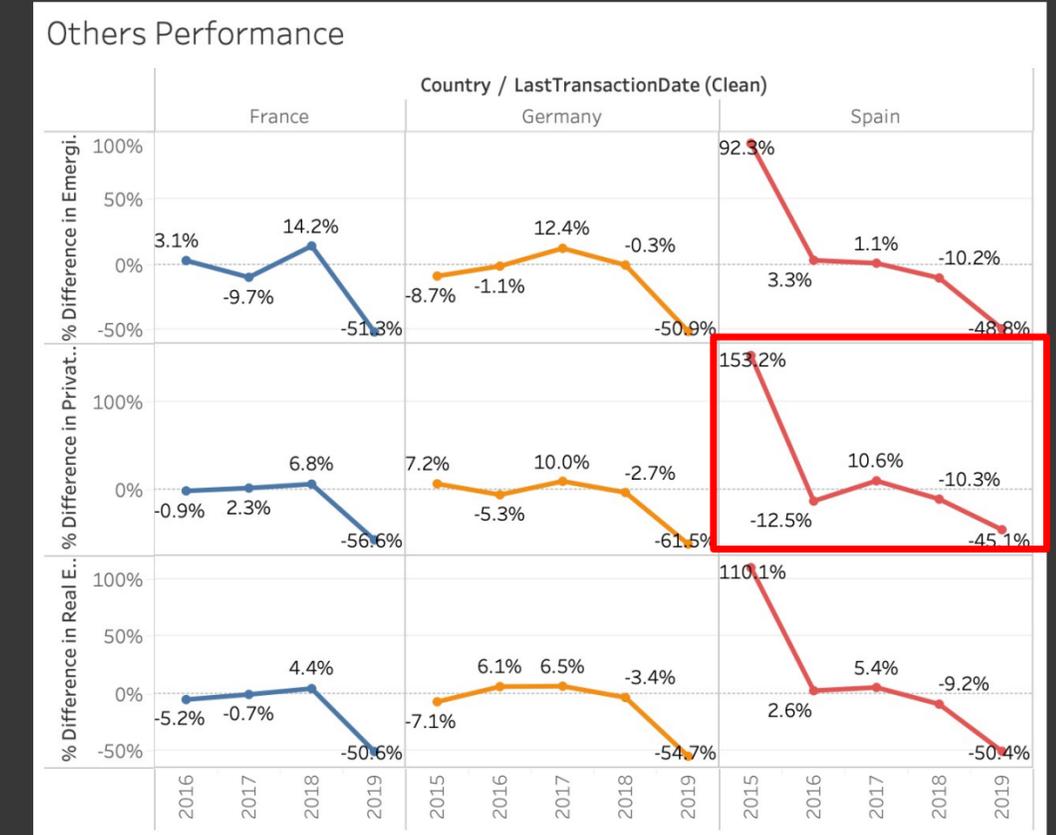
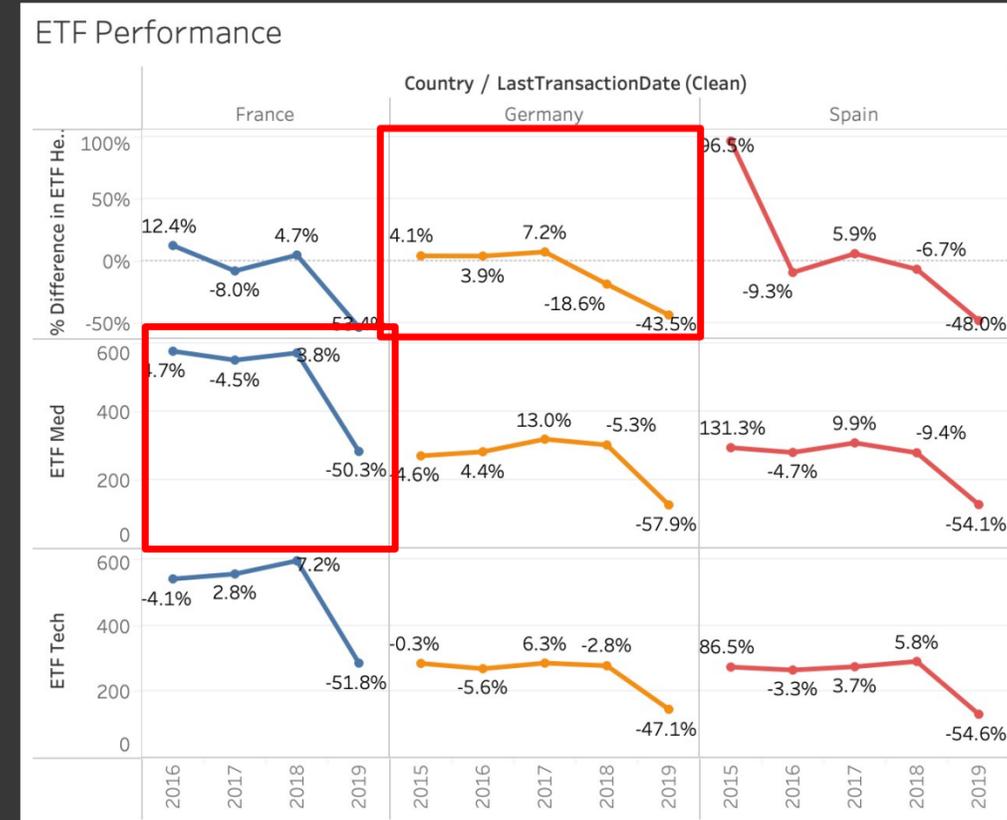
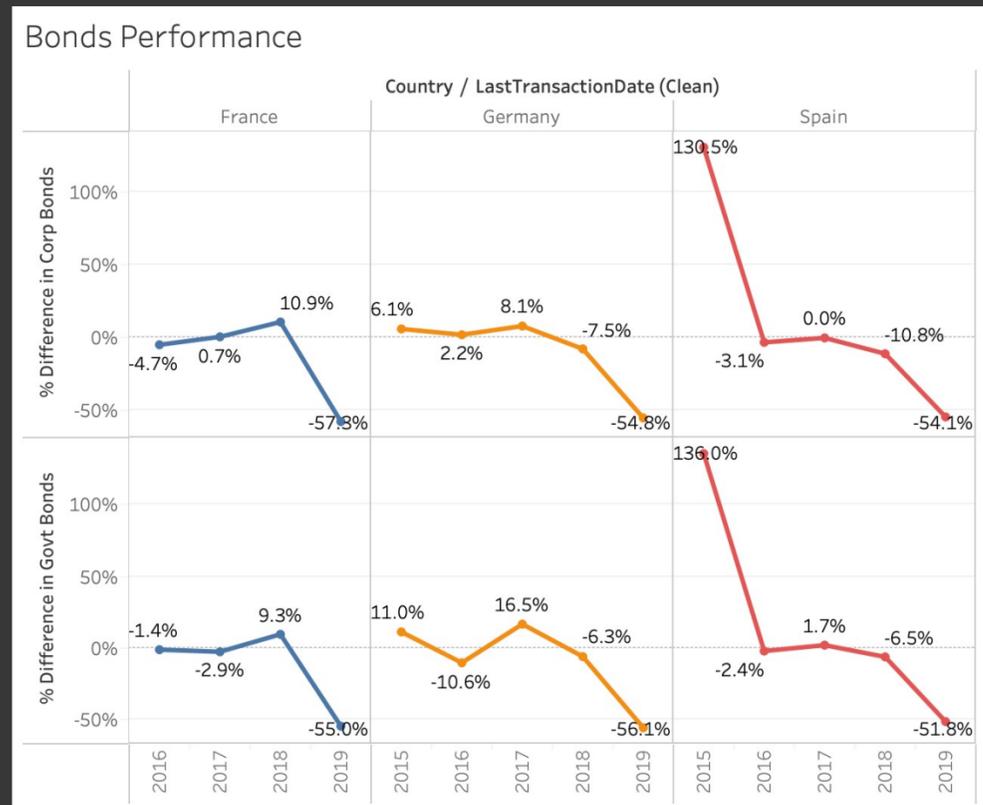
# Visualization and Insights

## Overall Trend in Sales

- Overall sale of all wealth management products have dropped significantly in Year 2019 for all 3 countries.
- Germany has the highest drop in sales in 2019.
- This might be due to the slowdown of economic growth. Hence, affecting customers' behavior towards investing in wealth management products.



# Visualization and Insights



## Closer Look on the Sale of Each Product in 2019

- Despite the negative outlook, the following wealth products have the least impact in sales performance:-
  - France: ETF Med (-50.3%)
  - Germany: ETF Health (-43.5%)
  - Spain: Private Equity (-45.1%)

# Visualization and Insights

## Diversification of Products

- Most of the customers in all countries purchased 4 out of the 8 wealth management products that the Bank offers from 2015 to 2019.

### Diversification of Portfolio

Num Produ..	LastTransactionDate (Clean) / Country														
	2015			2016			2017			2018			2019		
	France	Germ..	Spain	France	Germ..	Spain	France	Germ..	Spain	France	Germ..	Spain	France	Germ..	Spain
0	2	5	2	5	2	5	5		2	5	1	2	1		1
1	31	13	17	34	15	27	48	24	17	25	17	15	18	4	7
2	113	58	72	113	52	64	118	67	46	126	53	64	60	24	30
3	231	106	146	222	103	121	223	139	118	236	134	111	129	60	55
4	316	146	137	321	178	143	272	138	160	305	142	146	162	79	64
5	265	136	123	236	122	121	274	141	117	275	136	101	100	56	59
6	109	59	62	137	49	53	109	67	75	141	68	67	59	28	31
7	35	20	18	38	19	21	40	23	20	36	10	22	22	6	10
8	5	1	1	2	2	3	4	2	1	4	2		2	2	

# Visualization and Insights

## Credit Score Ratings and Estimated Salary of Customers

- Percentage of “Very Poor” credit score ratings has increased throughout the years mainly for France and Spain.
- Most of the customers with high estimated salary have “Fair” credit score ratings, which is one tier above “Very Poor” credit score rating under FICO Credit Score Range. This is consistent across all 3 countries.

Credit Score Rating Per Year

Credit Scor..	Country / LastTransactionDate (Clean)														
	France					Germany					Spain				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
EXCEPTION..	6.64%	7.41%	6.55%	5.74%	7.04%	7.05%	7.51%	7.84%	4.01%	9.55%	6.01%	7.26%	5.00%	6.73%	4.87%
FAIR	32.39%	32.67%	31.26%	32.03%	30.60%	30.51%	33.99%	36.42%	32.60%	38.51%	35.87%	33.02%	36.23%	32.67%	34.90%
GOOD	25.47%	24.65%	24.58%	24.76%	22.99%	24.18%	23.94%	21.79%	24.64%	19.13%	27.35%	25.33%	26.65%	22.04%	22.64%
VERY GOOD	11.96%	12.71%	12.25%	12.37%	13.07%	14.46%	13.40%	9.67%	14.98%	10.37%	10.34%	10.11%	11.53%	12.16%	12.50%
VERY POOR	23.53%	22.55%	25.36%	25.10%	26.29%	23.79%	21.16%	24.29%	23.78%	22.43%	20.43%	24.28%	20.59%	26.40%	25.10%

# Business Recommendations

01

## Promote Products with the Least Impact from Economic Downturn

The Bank can promote the following products in the respective country given that these products are least impacted by the economy downturn in 2019:-

- France: ETF Med
- Germany: ETF Health
- Spain: Private Equity

02

## Promote Diversification in Customers' Portfolio

The Bank can promote diversifying the customers' portfolio in terms of the financial instruments and industries to reduce unsystematic risks.

03

## Conduct Customer Suitability Checks before Offering Products

Based on the increase in "Very Poor" credit score rating throughout the years and most customers with high estimated salary having "Fair" credit score rating, the Bank should perform thorough customer suitability checks before recommending the relevant wealth management products to customers in order to mitigate default risk.

# Thank You

**Link to Tableau Workbook:-**

[https://public.tableau.com/app/profile/jie.qi/viz/JieQiTam\\_CapstoneProject/DifferenceofSalesPerYear?publish=yes](https://public.tableau.com/app/profile/jie.qi/viz/JieQiTam_CapstoneProject/DifferenceofSalesPerYear?publish=yes)

