



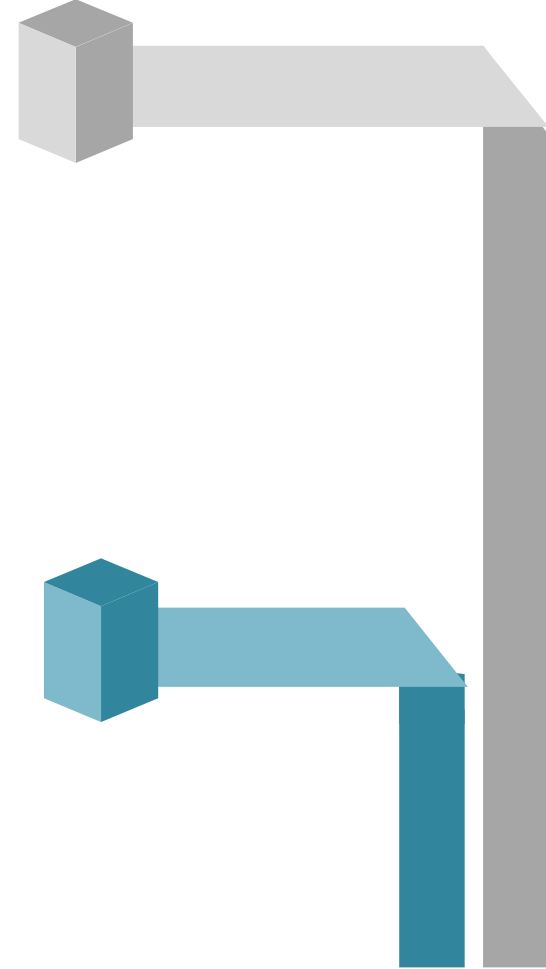
# Profitability, Equity Capitalization and Net Worth at Risk

ECCBSO Financial Statement Analysis Working Group

30 August 2018 | 9th biennial IFC conference

## AGENDA

- ▶ Motivation and Importance
- ▶ Profitability, Equity Capitalization, Net Worth at Risk



# MOTIVATION AND IMPORTANCE

# Motivation and Importance

## Financial Statement Analysis Working Group (WG FSA)



Working Group of The European Committee of Central Balance-Sheet Data Offices (ECCBSO)



Scope is common microeconomic research on specific topics of the economic and financial situation of non-financial entities in an international setting.



Any field of financial statement analysis like profitability, equity endowment, liability structure or asset composition.



Structural, cross-sectional and time-series analyses are mainly applied.



Investigate whether accounting or institutional characteristics can explain differences in the results.

## Motivation and Importance

### NET WORTH AT RISK (NWAR)

- ❑ The concept first introduced by FSA WG in 2005
- ❑ NWAR can be considered as very important because it is a kind of stress test to evaluate sector-size level performance when having heavy losses
- ❑ Serves as a benchmark of minimum capital required in a given sector-size class enabling companies to absorb losses that might potentially arise
- ❑ For each company cumulative two-year net income figures in terms of total assets are calculated
- ❑ From the resulting two-year net income distributions in each sector-size combination, the 10th percentile is chosen, resulting in a time series of overlapping two-year values negative values result normally, these time series are consequently labeled Two-year Losses 90%.

## Motivation and Importance

# Conditional and Unconditional NWR

- ❑ Conditional NWR is calculated as follows: for each company cumulative two-year net income figures in terms of total assets are calculated . From the resulting two-year net income distributions in each sector-size combination the 10th percentile is chosen; resulting in a time series of overlapping two year values. From the time series, the minimum level of the time span 1987-2015 is chosen for conditional NWR 90%.
- ❑ For the unconditional NWR 90%, the mean of the last eight conditional NWR 90% is used. The differentiation of conditional and unconditional NWR is important to assess the impact of recessions on the income distribution.
- ❑ Percentage of the companies with Net Worth below conditional NWR” is important in that this displays how well a sector is endowed with equity to cope with the NWR loss scenario.

# Profitability, Equity Capitalization and Net Worth at Risk

# Unconditional Net Worth at Risk and Cumulative two year losses at 10th percentile

## Spain- Unconditional Net Worth at Risk and Cumulative two year losses at 10<sup>th</sup> percentile Manufacturing, Trade and Construction Companies ( NACE Rev.2 C,G,F sectors)

Table 1

	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	Unconditional
<b>C-micro</b>	-26.9	-39.7	-43.3	-43.0	<b>-45.7</b>	-43.2	-33.7	-25.6	-37.6
<b>G-micro</b>	-34.7	-43.7	-44.1	-45.4	-50.2	<b>-51.1</b>	-47.3	-39.6	-44.5
<b>F-micro</b>	-33.6	-42.7	-45.2	-46.8	<b>-48.4</b>	-42.9	-34.2	-26.5	-40.0
<b>C-small</b>	-2.7	-7.2	-7.1	<b>-8.2</b>	-7.0	-6.3	-3.9	-0.8	-5.4
<b>G-small</b>	-1.1	-4.6	-5.0	-5.5	<b>-6.9</b>	-5.6	-3.4	-0.8	-4.1
<b>F-small</b>	-0.7	-3.3	-6.5	-11.9	<b>-12.2</b>	-9.5	-7.5	-2.7	-6.8
<b>C-medium</b>	-5.5	-11.7	<b>-12.0</b>	-8.9	-9.2	-8.2	-5.5	-2.7	-7.9
<b>G-medium</b>	-1.9	-6.2	-5.5	-5.5	<b>-7.4</b>	-5.5	-3.6	-1.6	-4.7
<b>F-medium</b>	0.0	-3.2	-10.8	-12.4	<b>-19.9</b>	-18.6	-12.4	-5.9	-10.4
<b>C-large</b>	-8.6	<b>-12.7</b>	-11.2	-7.0	-9.0	-9.9	-6.2	-3.4	-8.5
<b>G-large</b>	-4.2	-7.0	-9.2	-6.1	<b>-10.6</b>	-7.0	-4.6	-3.3	-6.5
<b>F-large</b>	-0.2	-6.6	-4.3	-10.1	-14.3	<b>-21.4</b>	-14.0	-10.6	-10.2



# Unconditional Net Worth at Risk and Cumulative two year losses at 10th percentile

## Italy - Unconditional Net Worth at Risk and Cumulative two year losses at 10<sup>th</sup> percentile

### Manufacturing, Trade and Construction Companies ( NACE Rev.2 C,G,F sectors)

Table 3

	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	Unconditional
C-micro	-20.4	-23.1	-24.0	-20.1	<b>-21.1</b>	-21.1	-19.1	-15.2	-20.5
G-micro	-24.1	-25.7	-24.7	-23.5	-25.5	<b>-26.6</b>	-24.1	-20.3	-24.3
F-micro	-9.4	-10.2	-10.2	-10.1	<b>-11.9</b>	-13.2	-13.2	-10.9	-11.1
C-small	-6.3	-8.5	-8.3	<b>-6.6</b>	-6.9	-6.5	-4.9	-3.1	-6.4
G-small	-5.1	-6.2	-5.6	-5.3	<b>-6.6</b>	-6.9	-5.4	-2.9	-5.5
F-small	-2.1	-2.5	-2.6	-3.0	<b>-4.2</b>	-5.2	-4.6	-2.6	-3.3
C-medium	-6.2	-8.0	<b>-8.4</b>	-6.0	-7.2	-6.5	-4.6	-3.1	-6.3
G-medium	-4.5	-5.6	-4.9	-4.9	<b>-5.8</b>	-6.2	-4.4	-2.0	-4.8
F-medium	-1.5	-2.2	-2.0	-2.8	<b>-5.8</b>	-5.1	-5.3	-2.7	-3.4
C-large	-7.9	<b>-10.5</b>	-10.6	-8.4	-9.3	-9.2	-8.1	-5.1	-8.6
G-large	-4.6	-5.5	-4.3	-3.6	<b>-4.9</b>	-6.5	-5.2	-3.3	-4.7
F-large	0.0	-0.8	-0.3	-3.6	-3.7	<b>-5.8</b>	-4.6	-0.4	-2.4

# Unconditional Net Worth at Risk and Cumulative two year losses at 10th percentile

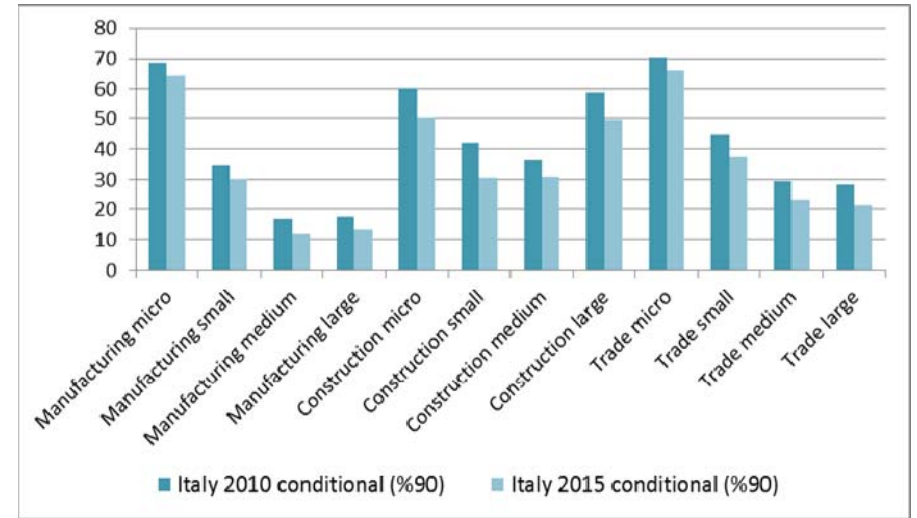
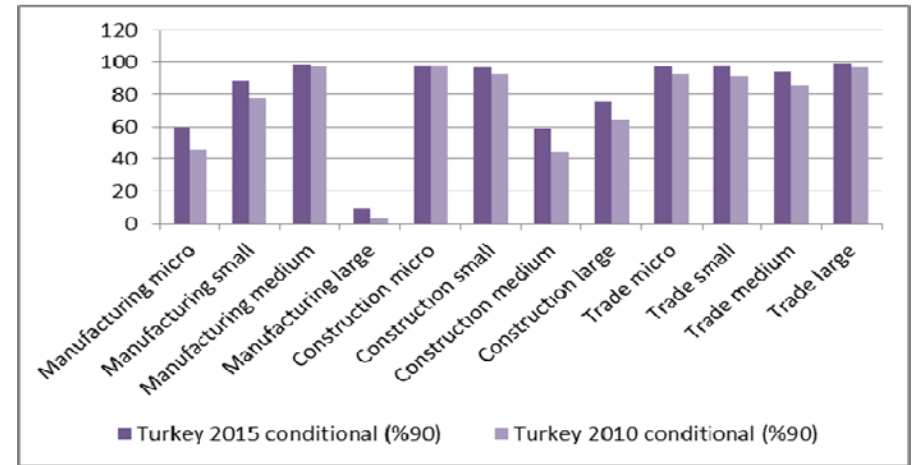
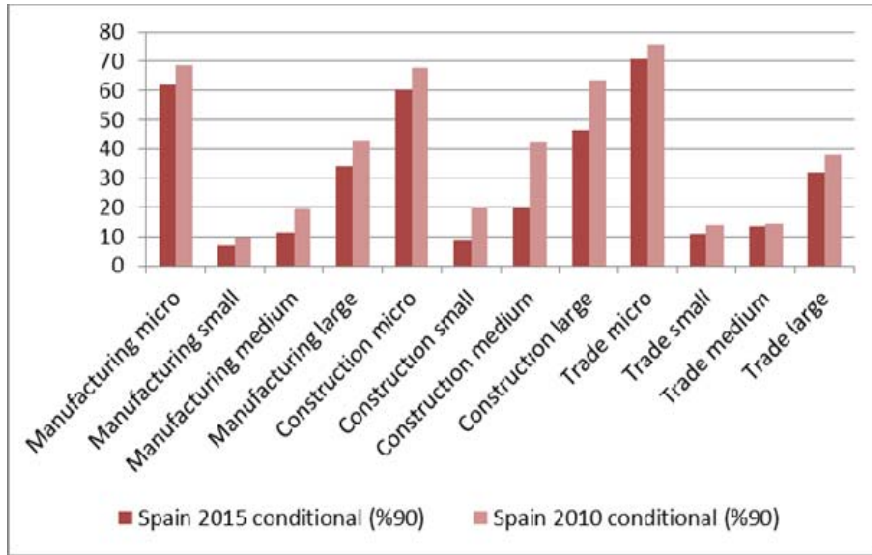
## Turkey - Unconditional Net Worth at Risk and Cumulative two year losses at 10<sup>th</sup> percentile

### Manufacturing, Trade and Construction Companies ( NACE Rev.2 C,G,F sectors)

Table 3

	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	Unconditional
C-micro	-13.3	-17.8	-17.7	-27.6	<b>-30.0</b>	-24.6	-25.1	-27.8	-23.0
G-micro	-11.3	-16.9	-19.2	-21.6	-32.7	<b>-9.8</b>	-13.2	-22.3	-18.4
F-micro	-8.1	-10.6	-12.8	-21.7	<b>-19.9</b>	-14.3	-16.9	-14.0	-14.8
C-small	-9.9	-14.7	-12.1	<b>-19.3</b>	-16.1	-7.7	-12.0	-10.2	-12.7
G-small	-6.5	-9.1	-5.9	-15.0	<b>-15.4</b>	-5.3	-7.6	-7.8	-9.1
F-small	-3.2	-5.0	-4.8	-17.9	<b>-11.3</b>	-11.4	-9.4	-8.7	-9.0
C-medium	-10.5	-14.7	<b>-6.2</b>	-9.9	-8.6	-4.4	-5.6	-5.4	-8.2
G-medium	-9.1	-12.9	-4.8	-10.2	<b>-7.9</b>	-1.6	-3.8	-3.8	-6.7
F-medium	-1.5	-7.5	-6.2	-11.3	<b>-12.3</b>	-6.0	-7.1	-17.0	-8.6
C-large	-9.4	<b>-11.2</b>	-4.4	-6.8	-5.7	-6.0	-6.2	-6.9	-7.1
G-large	-3.2	-8.7	-4.7	-5.3	<b>-4.5</b>	-3.0	-3.0	-3.4	-4.5
F-large	-2.3	-5.1	-2.2	-4.6	-5.5	<b>1.2</b>	-2.9	-5.5	-3.4

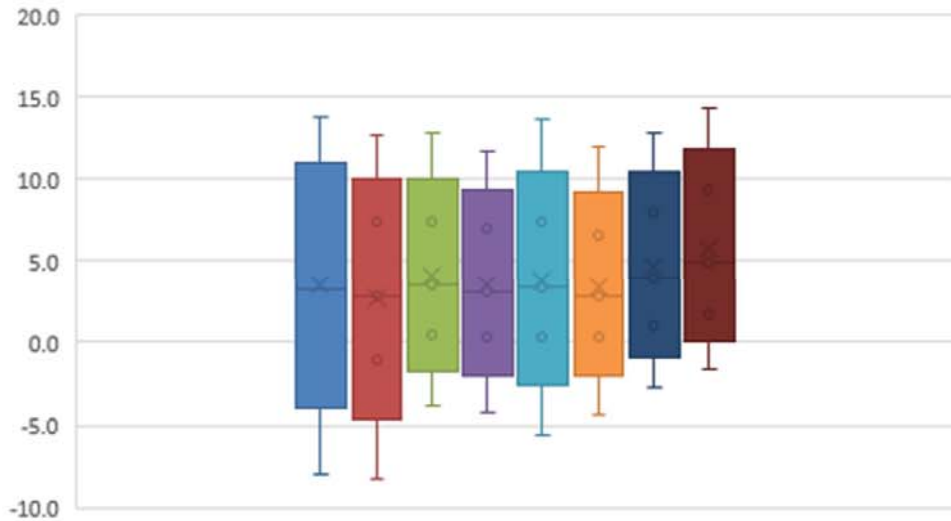
# PERCENTAGE OF COMPANIES WITH EQUITY BELOW UNCONDITIONAL NwAR COMPARISON FOR YEARS 2010 AND 2015



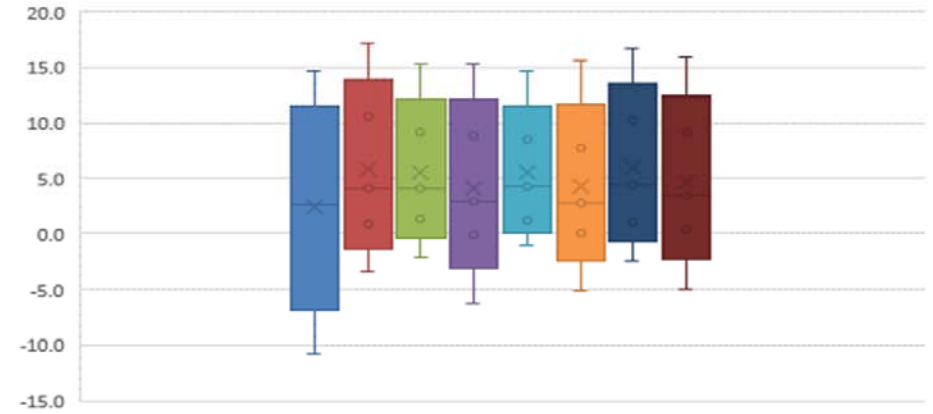
## PROFITABILITY-LARGE MANUFACTURING COMPANIES

Net Profit or Loss/Total Assets (2008-2015)

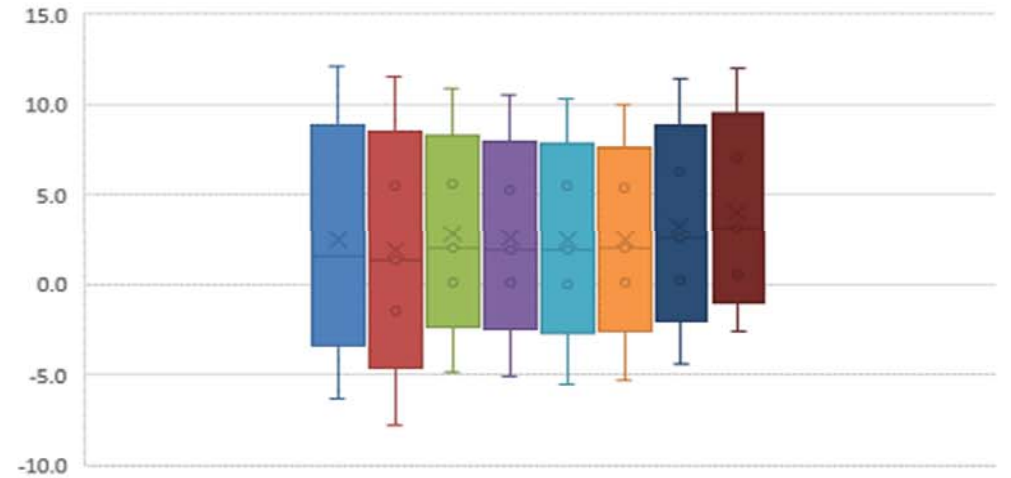
SPAIN-Profiteability (2008-2015)  
Large Manufacturing Companies



TURKEY-Profiteability (2008-2015)  
Large Manufacturing Companies



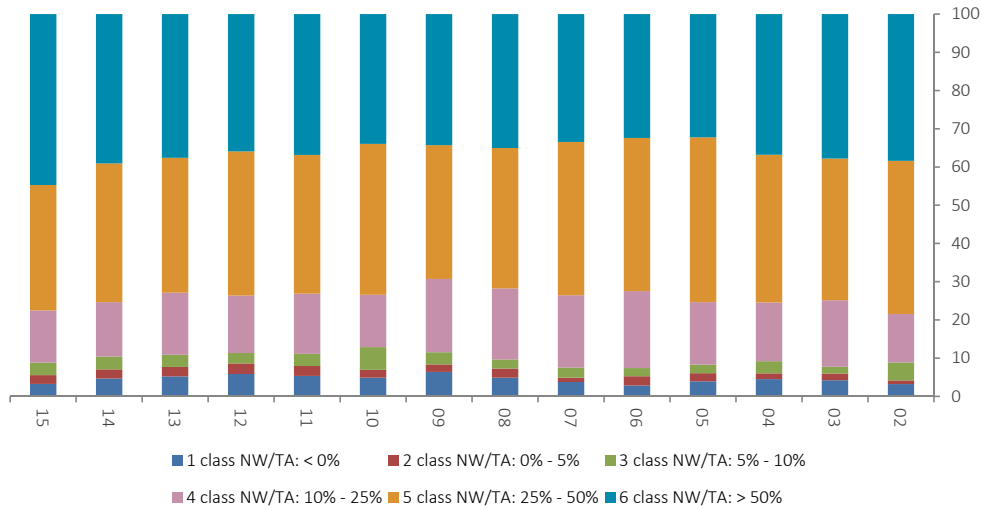
ITALY-Profiteability (2008-2015)  
Large Manufacturing Companies



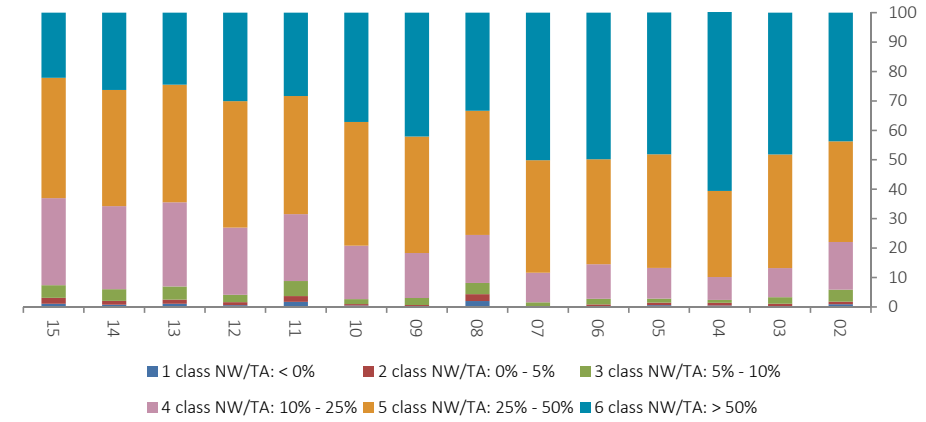
# EQUITY CAPITALIZATION-LARGE MANUFACTURING COMPANIES

## Net Worth/Total Assets (2002-2015)

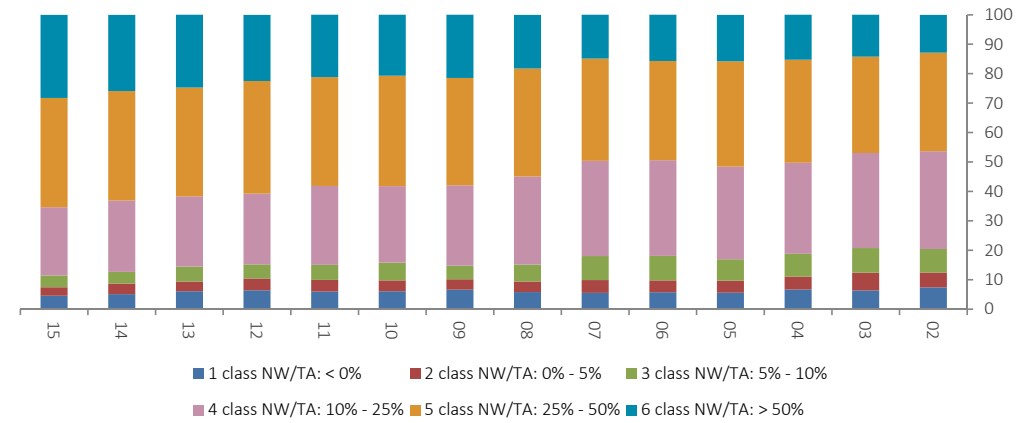
SPAIN



TURKEY



ITALY



# THANK YOU

merve.artman@tcmb.gov.tr

fsa-wg@bde.es

<https://www.eccbso.org/wba/default.asp>

