

# **Towards Green Companies: A Panel Data Study of The Environmental and Financial Performance Nexus**

Pierrick KINIF

Supervised by Sophie BÉREAU and Jean-Yves GNABO

University of Namur

Faculty of Economics, Social Sciences and Business Administration

June 20, 2018

## 1 Introduction

## 2 Theoretical Framework

## 3 Methodology

## 4 Results

## 5 Summary

## 6 References

# Introduction

# Context

# Objectives

- cite objectives

## Introduction

○○●

## Theoretical Framework

○○○

## Methodology

○○○

## Results

○○○○

## Summary

○○○

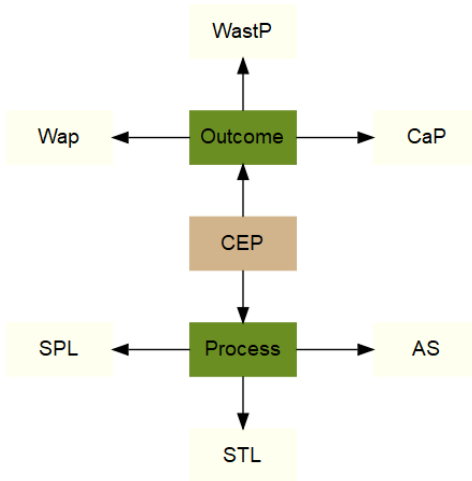
## References

○○

## Theoretical Framework

# CEP - CFP Nexus

## CEP





# Hypotheses

Introduction

○○○○

Theoretical Framework

○○○●

Methodology

○○○○

Results

○○○○○

Summary

○○○○

References

○○

## Methodology

# Data Description

$$Y_{it} = \alpha + \beta_1 SPL_{it} + \beta_2 STC_{it} + \beta_3 AS_{it} + Controls_{it} + d_t + u_{it} \quad (1)$$

where  $Y_{it}$  is a proxy of outcome-based CEP measured as carbon productivity, water productivity and waste productivity,  $SPL_{it}$  is a proxy for a firm's sustainability pay link,  $STC_{it}$  is a proxy for a firm's sustainability themed commitment,  $AS_{it}$  is a proxy for a firm's audit score,  $Controls_{it}$  is a vector of control variables that includes firm size, industry sector, financial leverage and growth,  $d_t$  represents the time effect and  $u_{it}$  is the error term.

$$Y_{it+1} = \alpha + \beta_1 SPL_{it} + \beta_2 STC_{it} + \beta_3 AS_{it} + \beta_4 CaP_{it} + \beta_5 WatP_{it} + \beta_6 WastP_{it} + Controls_{it} + d_t + u_{it} \quad (2)$$

where  $Y_{it+1}$  is a proxy of CFP measured as ROA or Tobin's Q,  $SPL_{it}$  is a proxy for a firm's sustainability pay link,  $STC_{it}$  is a proxy

# Panel Data

**Introduction**

○○○○

**Theoretical Framework**

○○○○

**Methodology**

○○○●

**Results**

○○○○○

**Summary**

○○○○

**References**

○○

## Results

# Process-based CEP positively influences outcome-based CEP

**Table 1:** The Impact of Process-Based on Outcome-Based CEP

	<i>Dependent variable:</i>		
	CaP Model (1)	WaP Model (2)	WastP Model (3)
SPL	0.010 (0.011)	0.022* (0.012)	0.025** (0.011)
STC	0.058*** (0.010)	0.067*** (0.011)	0.046*** (0.011)
AS	0.057*** (0.010)	0.068*** (0.011)	0.071*** (0.011)
FirmSize	−0.005 (0.008)	−0.008 (0.008)	−0.010 (0.008)
Leverage	0.0003 (0.001)	0.001* (0.001)	0.001** (0.001)
Growth	0.028 (0.028)	0.001 (0.030)	0.003 (0.028)
Industry	0.002 (0.002)	−0.00001 (0.002)	0.004** (0.002)
BPLM test (pvalue)	0***	0***	0***
F test (pvalue)	0***	0***	0***
Observations	1,123	1,123	1,123
Adjusted R <sup>2</sup>	0.109	0.138	0.132
F Statistic (df = 7; 1113)	20.888***	26.892***	25.632***

Note:

\* p<0.1; \*\* p<0.05; \*\*\* p<0.01



# Both process and outcome-based CEP have a positive impact on CFP

**Table 2:** The Impact of Process and Outcome-Based CEP on CFP

	<i>Dependent variable:</i>	
	TobinsQ Model (4)	ROA Model (5)
SPL	0.079* (0.044)	0.008** (0.004)
STC	0.063 (0.044)	0.012*** (0.004)
AS	0.158*** (0.044)	−0.004 (0.004)
CaP	−0.012 (0.135)	0.030** (0.012)
WaP	0.337** (0.155)	0.006 (0.012)
WastP	−0.199 (0.156)	0.010 (0.012)
FirmSize	−0.443*** (0.015)	−0.020*** (0.001)
Leverage	0.003 (0.003)	−0.00000 (0.0003)
Growth	0.465*** (0.152)	0.138*** (0.012)
Industry	−0.026*** (0.007)	−0.002*** (0.001)
Constant	10.701*** (0.345)	
BPLM test (pvalue)	0.508	0.024**
F test (pvalue)	0.323	0.012**
Observations	954	1,093
Adjusted R <sup>2</sup>	0.500	0.282
F Statistic	96.388*** (df = 10; 943)	44.007*** (df = 10; 1080)

Note:

\* p<0.1; \*\* p<0.05; \*\*\* p<0.01

# Sensitivity analyses

- Describe + confirms results

**Introduction**

○○○○

**Theoretical Framework**

○○○○

**Methodology**

○○○○

**Results**

○○○○●

**Summary**

○○○○

**References**

○○

## Summary

# Main findings and contributions

## ① Contribution 1

# Main findings and contributions

- ① Contribution 1
- ② Contribution 2

# Main findings and contributions

- ① Contribution 1
- ② Contribution 2
- ③ Contribution 3

# Main findings and contributions

- ① Contribution 1
- ② Contribution 2
- ③ Contribution 3
- ④ Contribution 4



# Limitations

## ① Limitation 1

# Limitations

- ① Limitation 1
- ② Limitation 2

# Limitations

- ① Limitation 1
- ② Limitation 2
- ③ Limitation 3

# Limitations

- ① Limitation 1
- ② Limitation 2
- ③ Limitation 3
- ④ Limitation 4

Introduction

○○○○

Theoretical Framework

○○○○

Methodology

○○○○

Results

○○○○○

**Summary**

○○○●

References

○○

## References

# References