

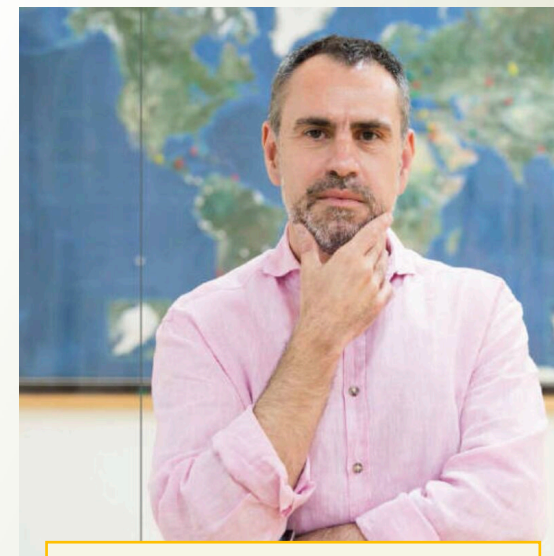
CONFERENCIA

Barcelona, 5 de julio de 2023


La Economía del Comportamiento.
Fundamentos, datos y evidencia empírica.
Casos de uso.



Jesús García, de
Universitat de Barcelona



José Vila, de Universidad
de Valencia



La Economía del Comportamiento. Fundamentos, datos y evidencia empírica. Casos de uso.

Curso de Postgrado de la Universidad de Barcelona.
Facultad de Economía y Empresa

<https://www.ub.edu/economiadelcomportamiento/>



UNIVERSITAT DE
BARCELONA

Jesús García

Coordinador del Posgrado en Economía del Comportamiento de la Universidad de Barcelona. BEruns y Profesor UB y UOC

José Vila

Catedrático Universidad de Valencia y asesor científico en DEVSTAT

Junio 2023

¿Qué es la economía del comportamiento?

Pedimos perdón a quienes estéis ya introducidos



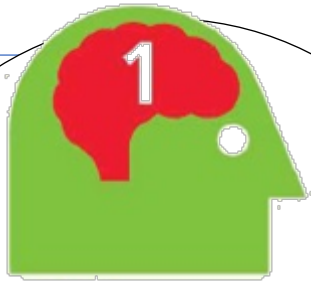
Thaler, puente entre lo económico y lo psicológico, descubrimientos teóricos y empíricos. Diseños de políticas, Premio Nobel de Economía en 2017

Racionalidad, teoría clásica de la economía

- Máximización de la utilidad esperada.
- Comprensión de las probabilidades.
- Valoración de las alternativas.
- No estamos sujetos a pasiones, preferencias temporales.

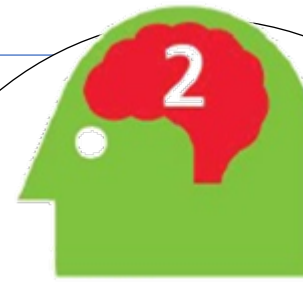
Racionalidad Limitada

- No somos así.
- Mi comportamiento es humano, no es mi culpa equivocarme.
- Error de los economistas clásicos al modelizar al ser humano.
- No siempre cometo errores, son sesgos. Son trazables, son sistemáticos, predecibles, consistentes.



SISTEMA 1:

Automático, rápido, intuitivo
e inconsciente
Abarca todas las tareas que
hacemos de forma
cotidiana
Respuestas casi
instantáneas



SISTEMA 2:

Pensamiento lento,
exhaustivamente
racional y consumidor
de recursos mentales

Daniel Kahneman

Premio Nobel de Economía en 2002



La Economía del Comportamiento. El comportamiento de las personas

Economía,
psicología,
sociología,
neurología,
antropología...
experimentos

Para estudiar el
comportamiento
humano, cómo
tomamos
decisiones

El contexto
condiciona el
comportamiento
humano

Las heurísticas
son atajos
eficientes

Preferencia
revelada vs
preferencia
reportada

El **99%** de
nuestras
decisiones no son
conscientes
Las decisiones
son
emocionales...

Diferencias con la Economía "clásica"

Los humanos tenemos problemas de **autocontrol**, ejemplo sesgo de presente

Los humanos tenemos **capacidad computacional limitada** – heurísticas...

Los humanos miramos **más allá del propio interés** – cooperación, altruismo...

Aplicación de la Economía del Comportamiento en España

Organizaciones privadas

BBVA*
CaixaBank
VidaCaixa
MicroBank
Santander
IberCaja
Inditex
Ferrovial
Mutua Madrileña
Iberdrola

Algunas consultoras

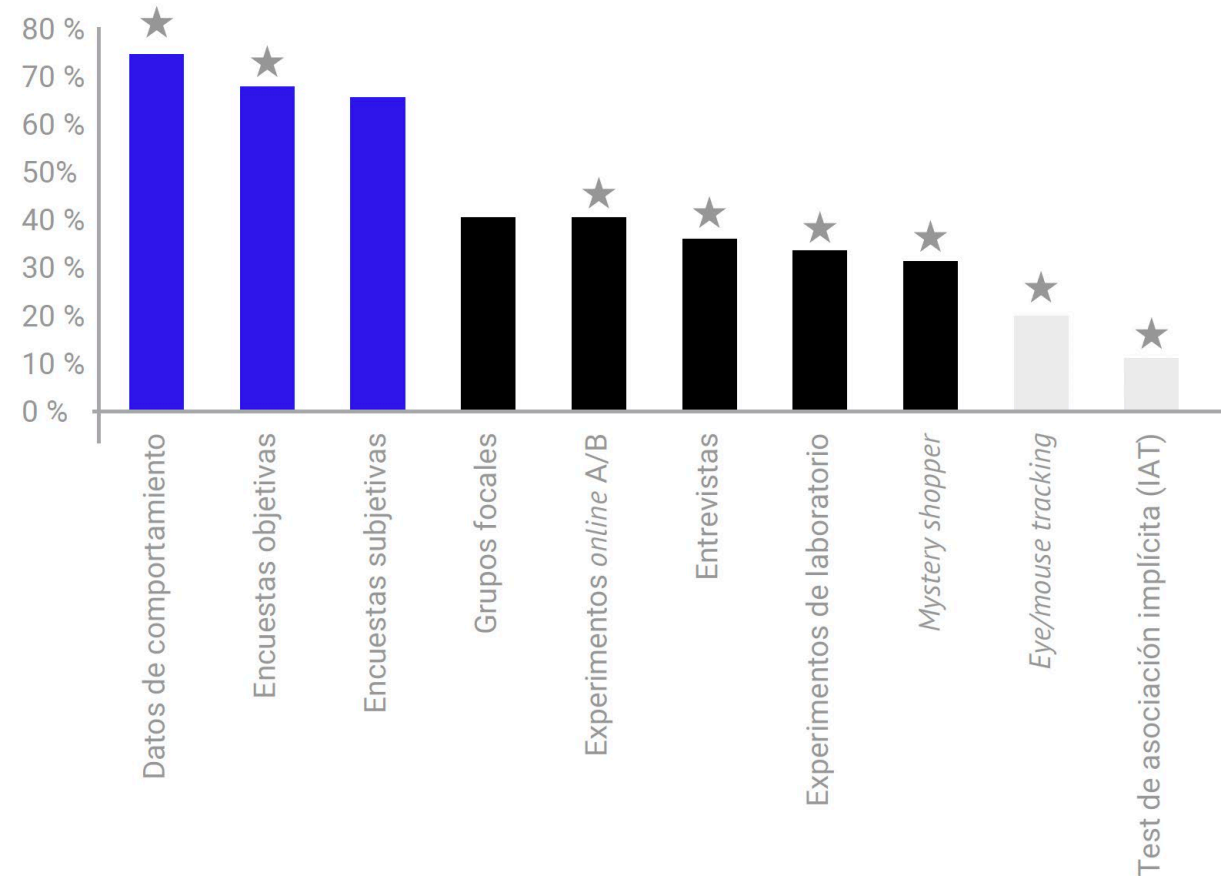
Administración

CNMV

“Economía conductual para la protección del inversor: Recomendaciones prácticas para inversores, entidades y reguladores” (Cadenas Sáez, 2020),

Aplicación de la Economía del Comportamiento en España

Figura 4. Principales métodos utilizados para la comprensión de los clientes.





Behavioural


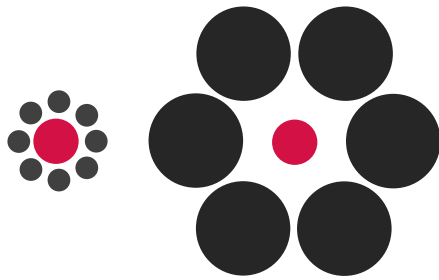
Economic

Experiments

¿Por qué usar BEEs?



Ejemplo:
Efecto Señuelo



Digital
\$3.50/week


\$9 50^c/DAY

For the first 12 weeks min. cost \$14 billed every 4 weeks. Then \$36 billed every 4 weeks.*

SUBSCRIBE

- ✓ Full access to The Australian website and apps
- ✓ The Australian Plus member benefits program
- ✓ Full digital access to The Wall Street Journal~
- ✓ Access Mind Games on any device. Test yourself with The Times Cryptic crossword or Sudoku
- ✓ No lock-in contract†

[Learn more](#)



Digital + weekend paper
\$3.50/week


\$9 50^c/DAY

For the first 12 weeks min. cost \$14 billed every 4 weeks. Then \$36 billed every 4 weeks.

SELECTED

- ✓ Full access to The Australian website and apps
- ✓ The Australian Plus member benefits program
- ✓ Full digital access to The Wall Street Journal~
- ✓ Access Mind Games on any device. Test yourself with The Times Cryptic crossword or Sudoku
- ✓ No lock-in contract†
- ✓ Saturday paper delivered including The Weekend Australian Magazine and Review

[Learn more](#)



Digital + 6 day paper
\$7/week

\$16 \$1/DAY

For the first 12 weeks min. cost \$28 billed every 4 weeks. Then \$64 billed every 4 weeks.*

SUBSCRIBE

- ✓ Full access to The Australian website and apps
- ✓ The Australian Plus member benefits program
- ✓ Full digital access to The Wall Street Journal~
- ✓ Access Mind Games on any device. Test yourself with The Times Cryptic crossword or Sudoku
- ✓ No lock-in contract†
- ✓ Saturday paper delivered including The Weekend Australian Magazine and Review
- ✓ Monday to Friday paper delivered including The Deal and WISH**

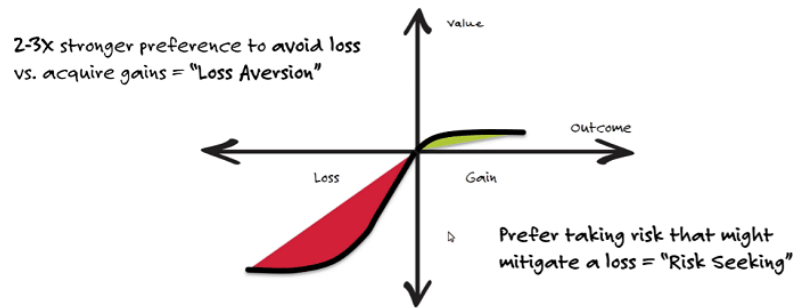
[Learn more](#)

¿Cuál es el papel de un BEE?

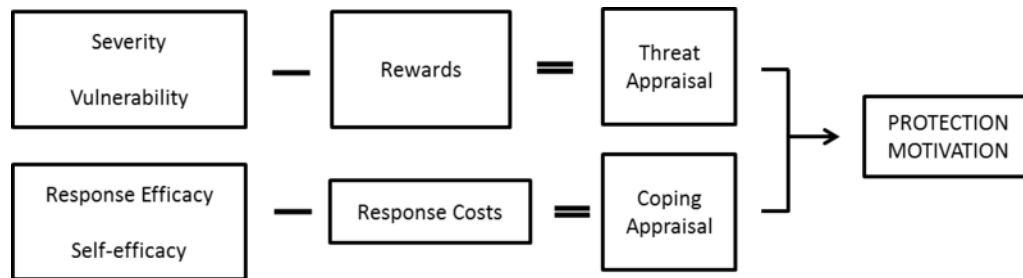


Los BEES **no sirven para explorar** como nos comportamos sino para **contrastar** las **hipótesis conductuales concretas** planteadas por nuestras **preguntas de investigación.**

Hipótesis basadas en modelos conductuales

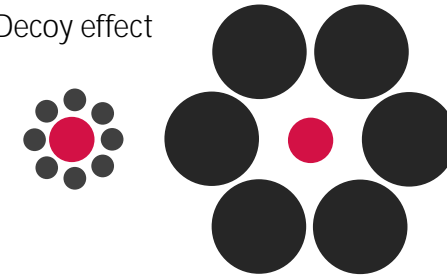


Teoría de las perspectivas (PT)



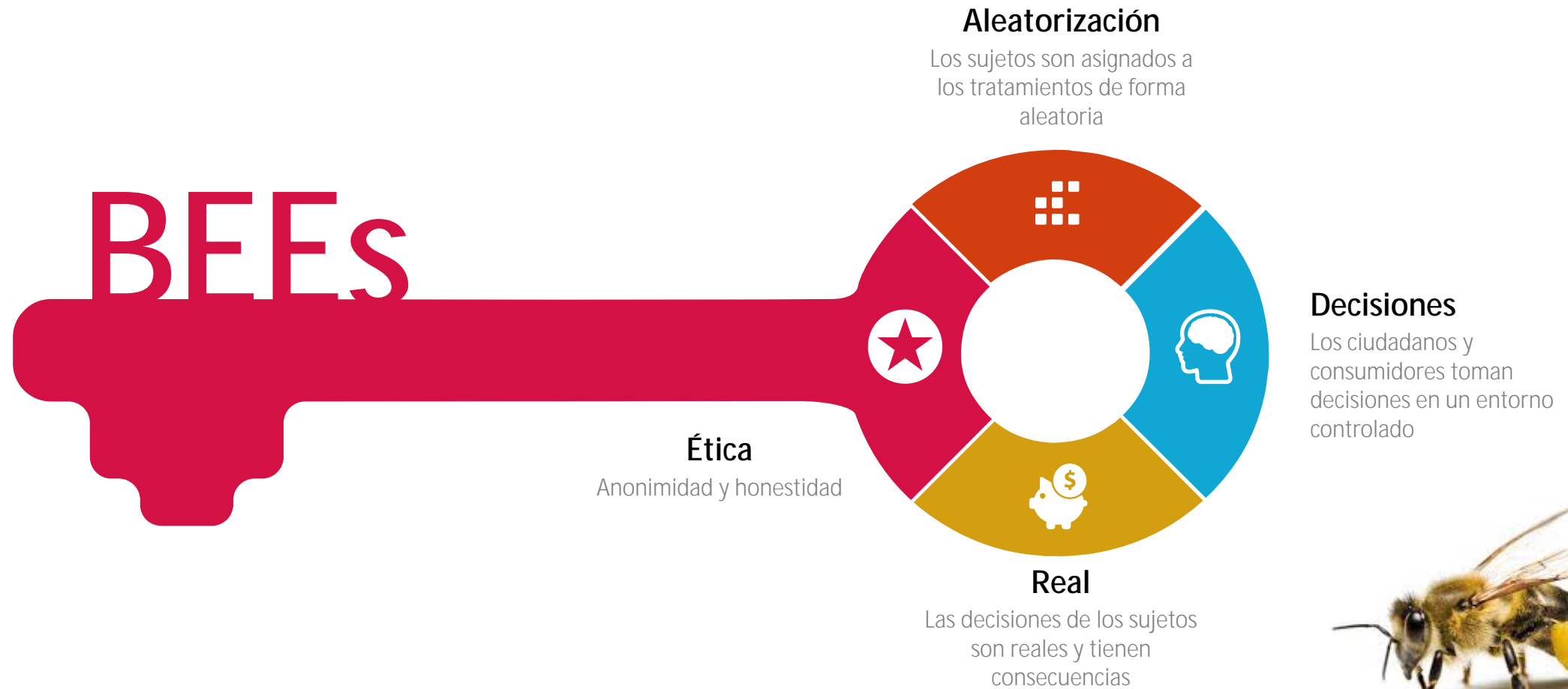
Teoría de la motivación-protección (PMT)

Decoy effect




Sesgos cognitivos y heurísticas

Elementos clave de un BEE



Establecimiento de relación causa-efecto

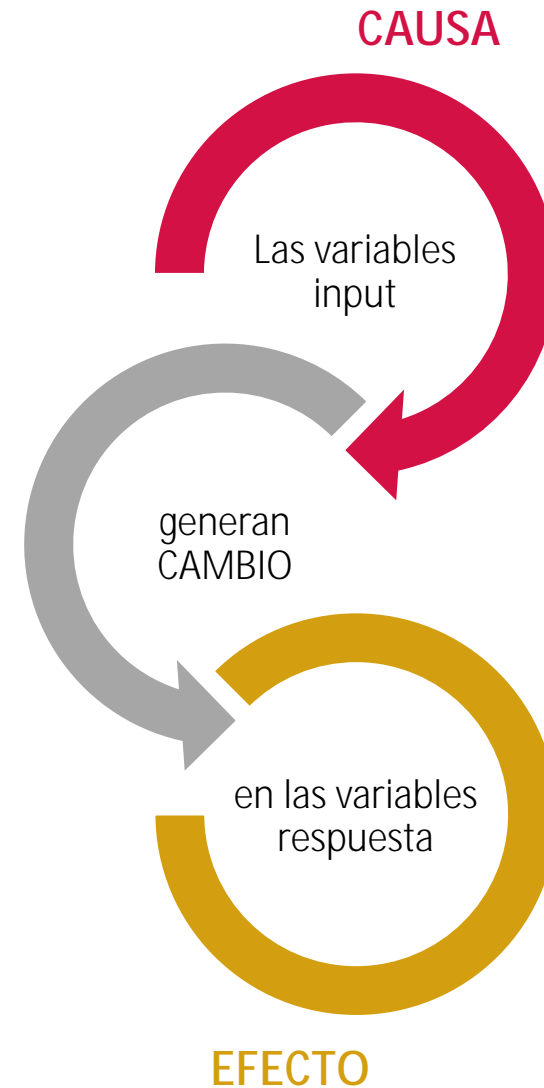
Variables input



Factores
variables de control

Variables respuesta

Medidas conductuales
Medidas auto-declaradas



Ejemplo para seguros: Medidas conductuales en CYBECO

Cybersecurity shop

Welcome to our Cybersecurity shop! Below, we present the security measures you can buy for CYBECORP. Select the measures you want to buy and press "Continue". Remember that you have a budget of 650 VC and keep in mind that once you press "Continue" you will not be able to go back. You can reread the instructions at any point by pressing the "Instructions" button on the top right.

Security Measures

Security measures are computer software that prevent, detect and remove malicious software:

Basic security measures	
	Basic security measures costs 0 VC and the initial probability of suffering the attack is 40%
Cost	0 VC
Attack probability	40%

Advanced security measures	
	Advanced security measures costs 314 VC and the initial probability of suffering the attack is 20%
Cost	314 VC
Attack probability	20%

Which one do you want to buy?

Basic security measures Advanced security measures

Cyber insurance

Cyberinsurance is an insurance product used to protect businesses from increased risks. We present three options with different level of coverage:

No insurance	
	Opting for no insurance costs 0 VC and covers 0 VC of lost profits in case of attack.
Cost	0 VC
Coverage	0 VC

Basic insurance	
	The "Basic insurance" costs 140 VC and covers 350 VC of lost profits in case of attack.
Cost	140 VC
Coverage	350 VC

Premium insurance	
	The "Premium insurance" costs 280 VC and covers 700 VC of lost profits in case of attack.
Cost	280 VC
Coverage	700 VC

Which one do you want to buy?

No insurance Basic insurance Premium insurance

Continue



Medidas de protección

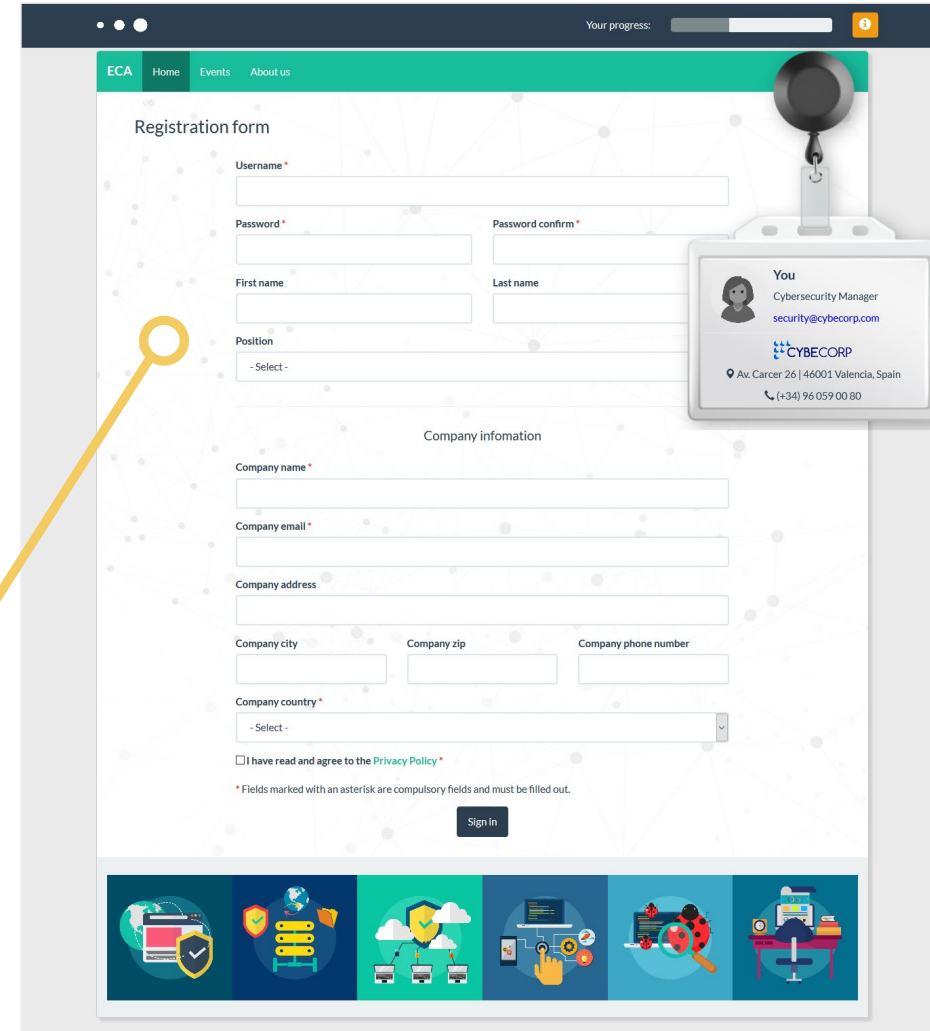
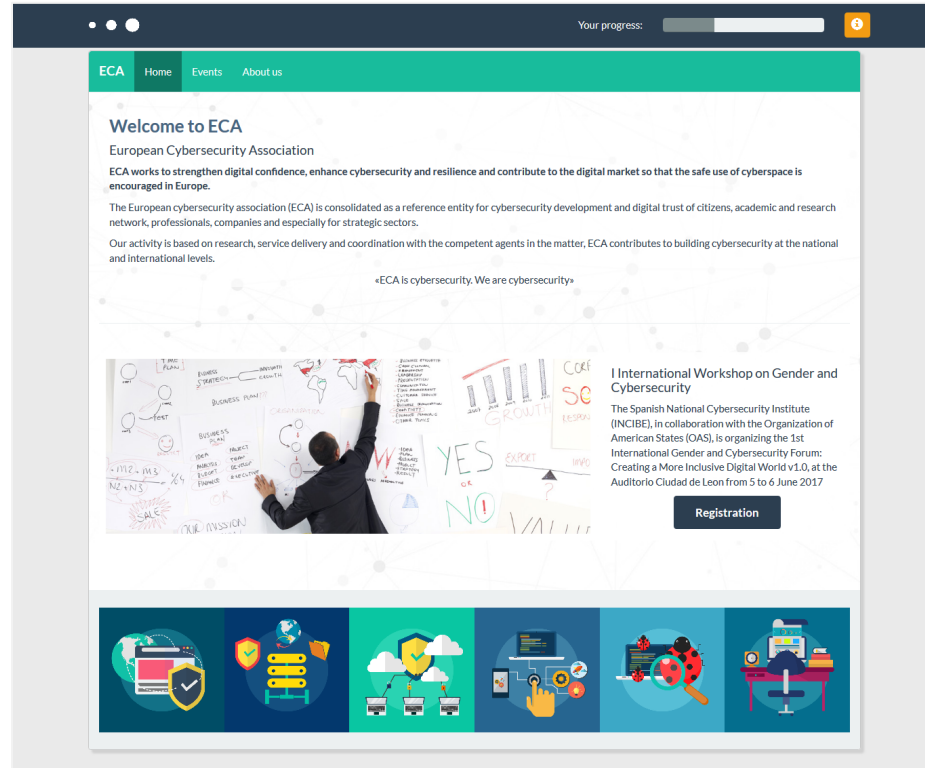
Las medidas avanzadas de seguridad (ASM) reducen la probabilidad de recibir un ataque a la mitad.



Ciber-seguro

Básico cubre 25% de las pérdidas /Premium cubre el 50% de las pérdidas

Ejemplo para seguros: Medidas conductuales en CYBECO



Comportamiento online
Influye en la probabilidad de recibir un
ciberataque



Actitud ante el riesgo: medidas conductuales y auto-declaradas

Stage 3

Finally, to increase your earnings, we are going to play eleven rounds of a quick and simple game. In each round, you will see a picture with two bags (Bag A and Bag B) with 10 balls in each bag. The balls have four different values:

● = 385 VC ● = 200 VC ● = 160 VC ● = 10 VC


In each round, we will ask you to select one of these two bags. After completing the eleven decisions:

- One of the 11 rounds of the game will be picked at random
- A ball will be drawn at random from the bag that you have actually chosen in this round
- The value of this ball will be added to your final payment

Please choose Bag A or Bag B for each decision below.


Decision 3

A



3 balls of 200 VC, 7 balls of 160 VC

B



3 balls of 385 VC, 7 balls of 10 VC

Stage 3 - Results

As mentioned before, the first random number will determine which of the eleven decisions will be used. All of them have the same probability to be picked. Click the button to start the draw:

Selected decision	Your choice for Decision 2				
2	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Bag A</th> <th style="width: 50%;">Bag B</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"> <input checked="" type="radio"/> 2 balls of 200 VC, 8 balls of 160 VC </td> <td style="text-align: center;"> <input type="radio"/> 2 balls of 385 VC, 8 balls of 10 VC </td> </tr> </tbody> </table>	Bag A	Bag B	<input checked="" type="radio"/> 2 balls of 200 VC, 8 balls of 160 VC	<input type="radio"/> 2 balls of 385 VC, 8 balls of 10 VC
Bag A	Bag B				
<input checked="" type="radio"/> 2 balls of 200 VC, 8 balls of 160 VC	<input type="radio"/> 2 balls of 385 VC, 8 balls of 10 VC				

● You have selected the bag A for decision 2 in the previous screen. So, now you have 2 balls with a value of 200 VC and 8 balls with a 160 VC. When you click the button, one of the balls will be randomly selected and this will be the number of additional VC you will earn.

200

200

160

160

160

160

160

160

160

160

Draw completed!

Your earnings:

Continue

Please indicate the extent to which you agree or disagree with the following statement by selecting the option you prefer. Please do not think too long before answering; usually your first inclination is also the best one.

- a. Safety first**

totally disagreetotally agree
- b. I do not take risks with my health**

totally disagreetotally agree
- c. I prefer to avoid risks**

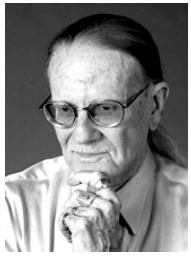
totally disagreetotally agree
- d. I take risks regularly**

totally disagreetotally agree
- e. I really dislike not knowing what is going to happen**

totally disagreetotally agree
- f. I usually view risks as a challenge**

totally disagreetotally agree
- g. I view myself as a ...**

risk avoiderrisk seeker



Vernon Smith
Premio Nobel
2002

Valor inducido: Alineando BEE y la realidad

Las decisiones tiene consecuencias

Your progress:

Online study

Based upon your security decisions and your internet navigation, you have:

Initial endowment:	650 VC	Initial probability of attack:	40 %
Cost of purchasing the advanced security measure:	-314 VC	Probability reduced by the advanced security measure:	-20 %
Cost of purchasing the insurance product:	-280 VC	Probability increased by your online behaviour:	+20.67 %
Final endowment:	56 VC	Final probability of attack:	40.67 %

Payoff in case of NO cyberattack: **1456 VC** Probability of cyberattack: **40.67%** Payoff in case of cyberattack: **756 VC**

ⓘ A random process will determine if you suffer a cyberattack or not.

No cyberattack

Congratulations, you have not suffered a cyberattack!

Company profits:	1400 VC
Final company value:	1400 VC
Your total payout:	1456 VC

Continue

Your progress:

Online study

Based upon your security decisions and your internet navigation, you have:

Initial endowment:	650 VC	Initial probability of attack:	40 %
Cost of purchasing the insurance product:	-140 VC	Probability increased by your online behaviour:	+33.33 %
Final endowment:	510 VC	Final probability of attack:	73.33 %

Payoff in case of NO cyberattack: **1910 VC** Probability of cyberattack: **73.33%** Payoff in case of cyberattack: **860 VC**

ⓘ A random process will determine if you suffer a cyberattack or not.

Cyberattack

You have suffered a cyberattack

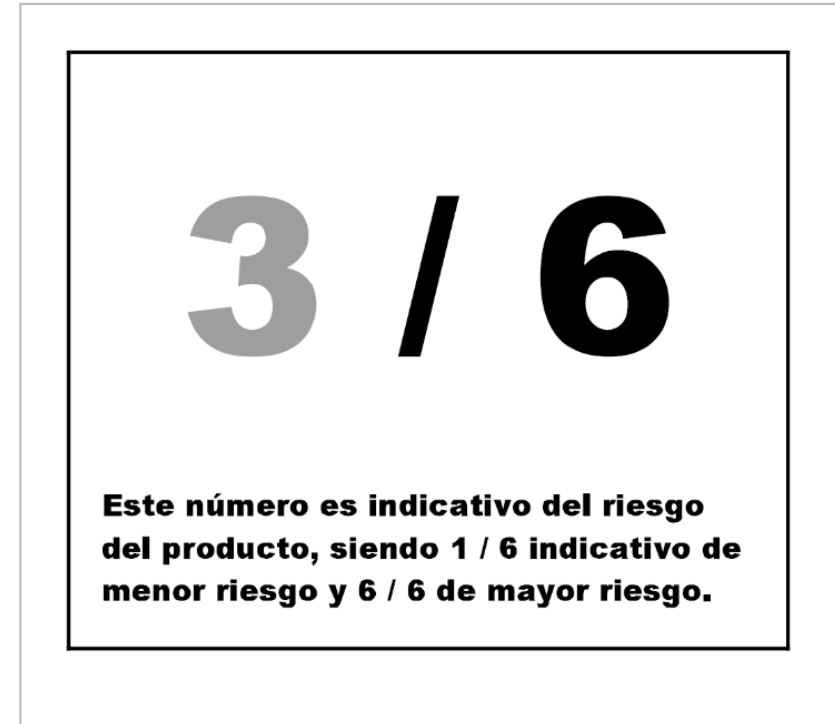
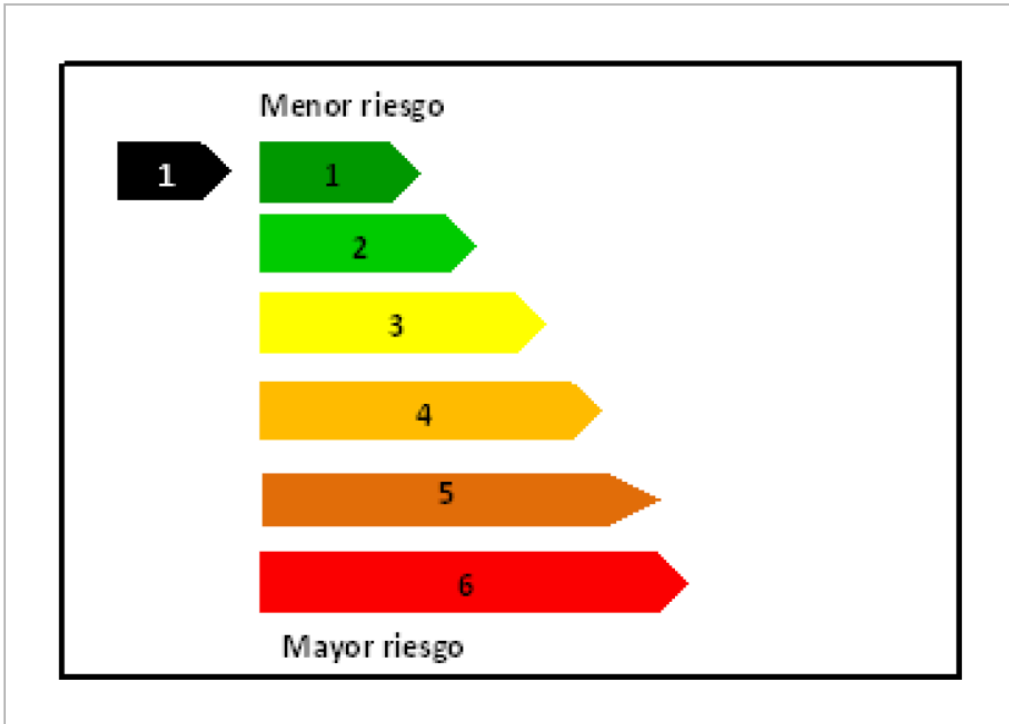
Company profits:	1400 VC
Amount lost due to cyberattack:	-1400 VC
Amount covered by the insurance:	+350 VC
Final company value:	350 VC
Your total payout:	860 VC

Continue

Caso de uso: etiquetado financiero en España

MINISTERIO DE ECONOMÍA Y COMPETITIVIDAD

11932 Orden ECC/2316/2015, de 4 de noviembre, relativa a las obligaciones de información y clasificación de productos financieros.



Caso de uso: presentación de los niveles de riesgo

levstat

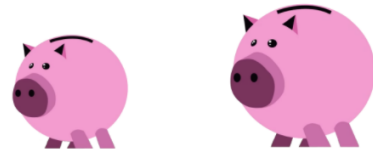
Instructions

You have available investment investment fund with a given risk. This fund yields a **high or low** yield with given probabilities.

Your only decision is to indicate the **minimum return** you would require to sell your variable income investment fund.

Please, press Continue to start the experiment.

Continue



levstat

Question 1

26



What is the minimum return you would require to sell your variable income investment fund?

Euros

Send

levstat

Question 1

27



2/3

This number indicates the product's risk, where 1/3 indicates lower risk and 3/3 indicates higher risk.

What is the minimum return you would require to sell your variable income investment fund?

Euros

Send

levstat

Question 1

27



LOWER RISK

1

2

2

3

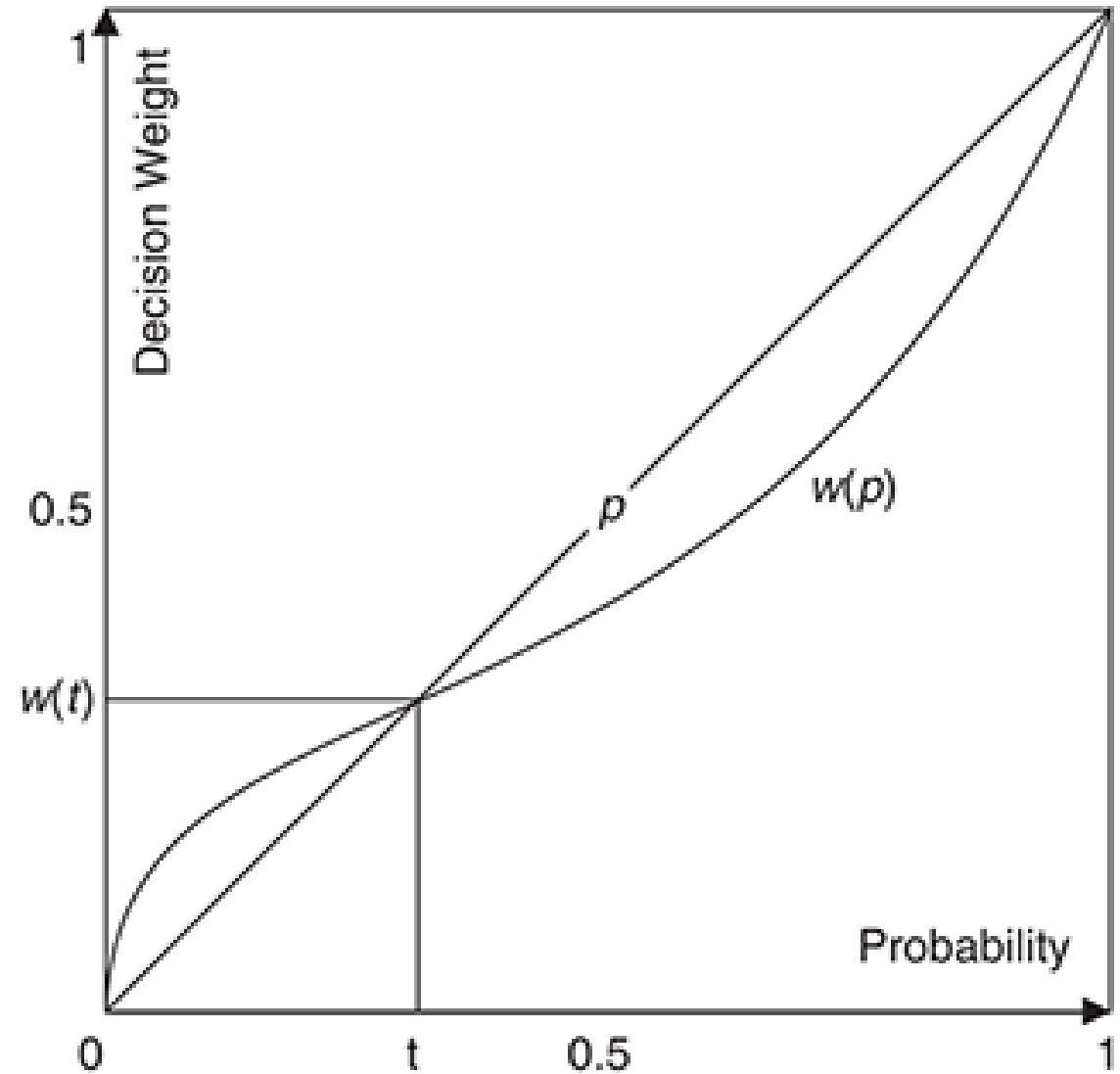
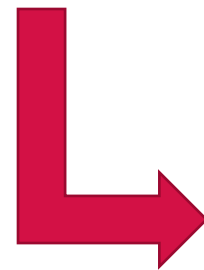
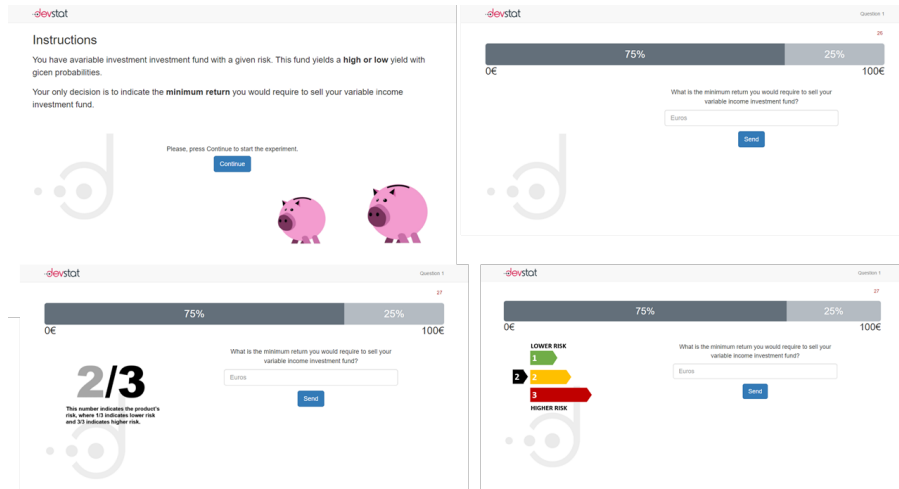
HIGHER RISK

What is the minimum return you would require to sell your variable income investment fund?

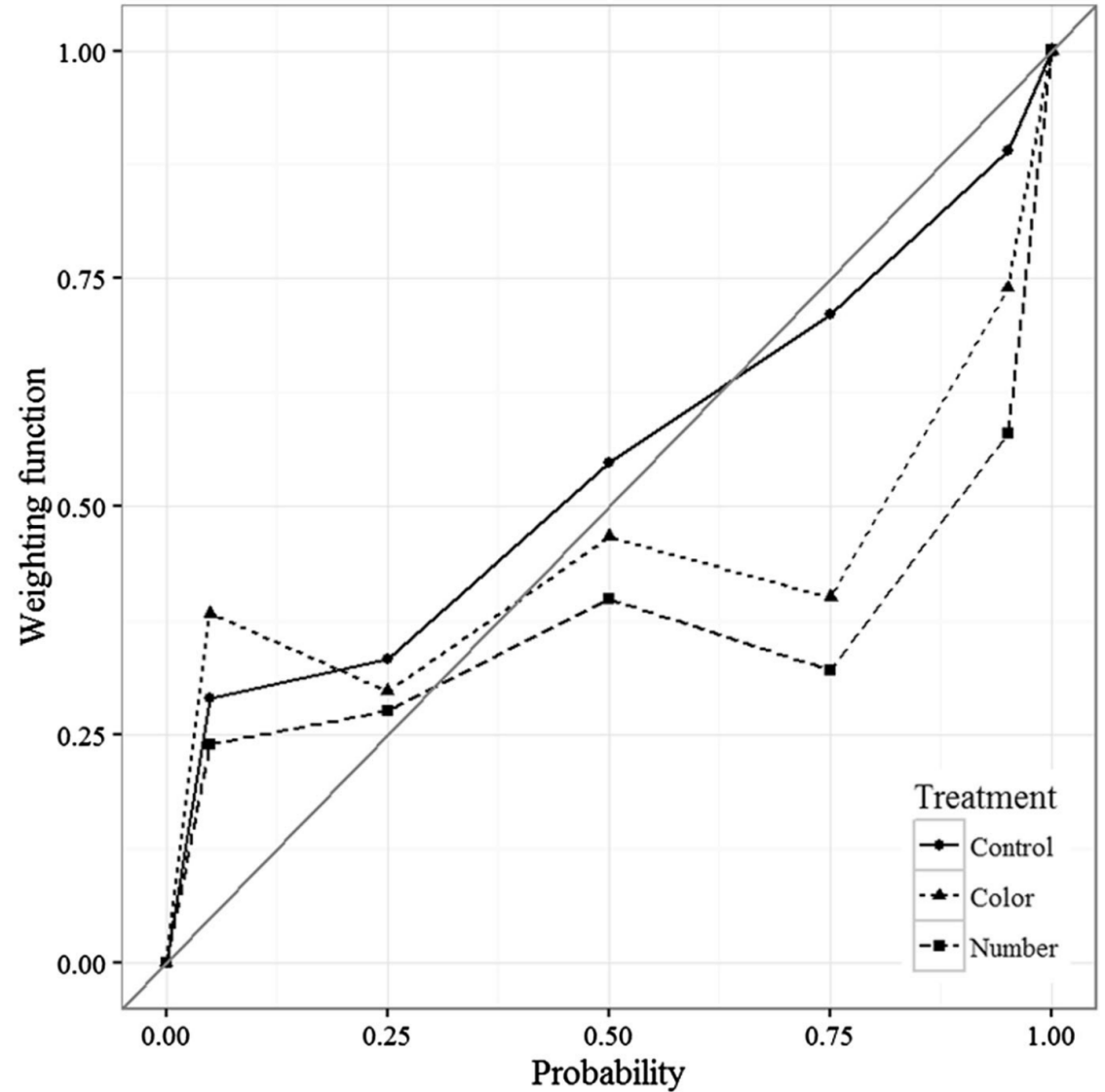
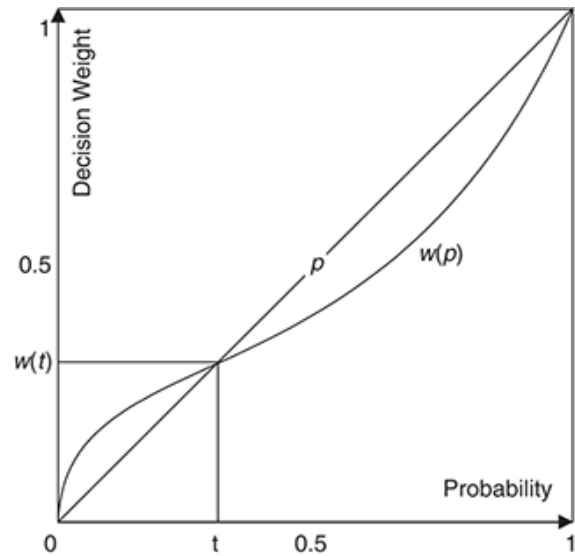
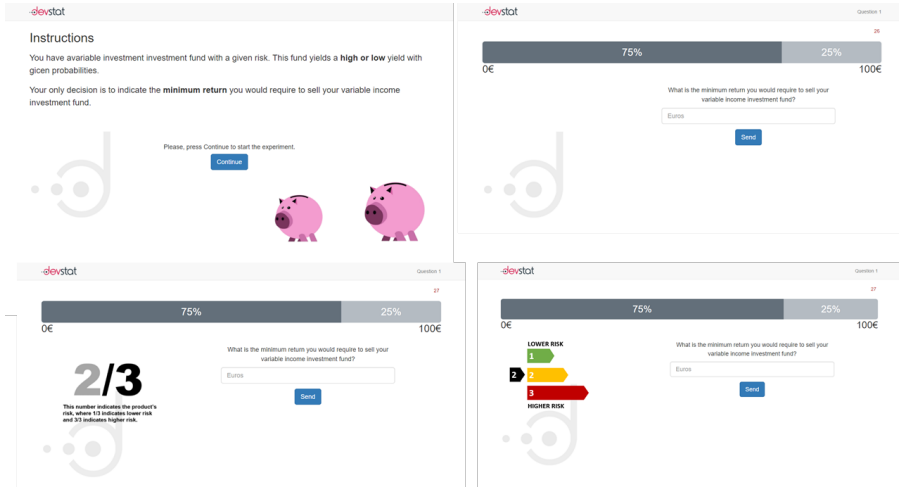
Euros

Send

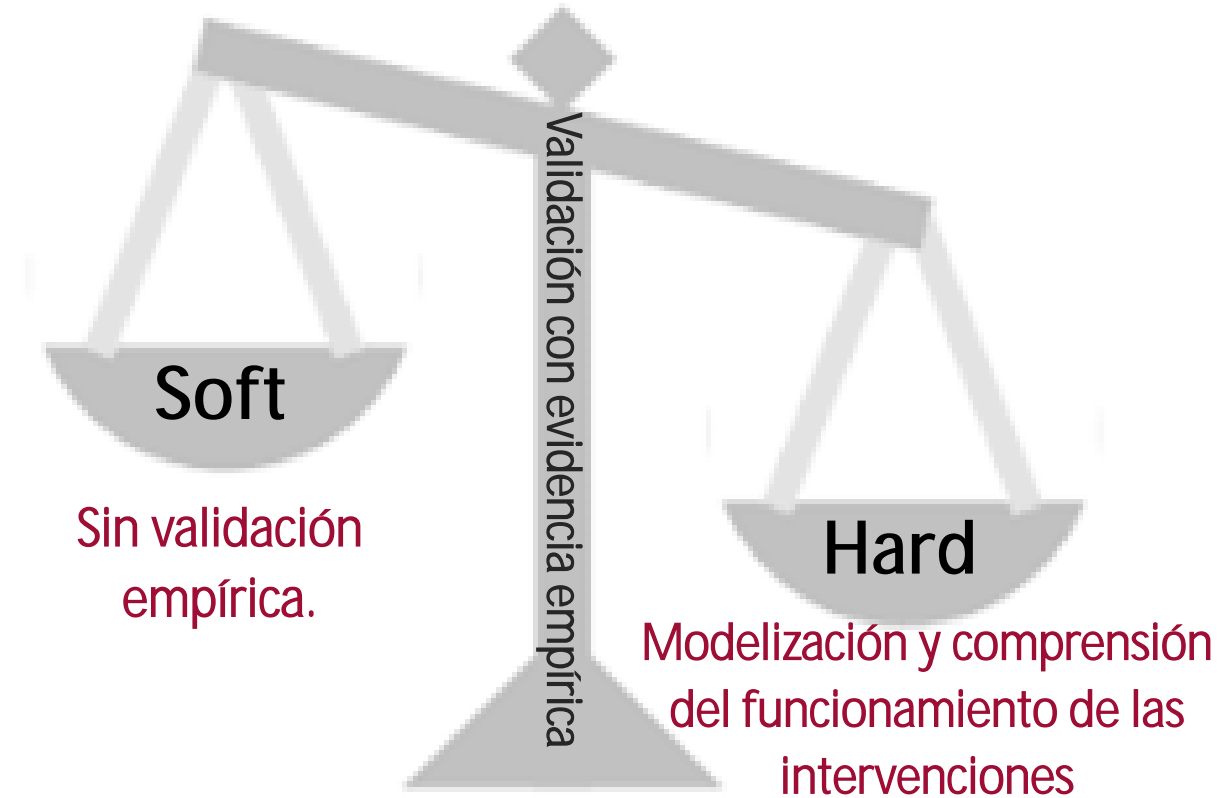
Caso de uso: calibración del modelo de Prospect Theory



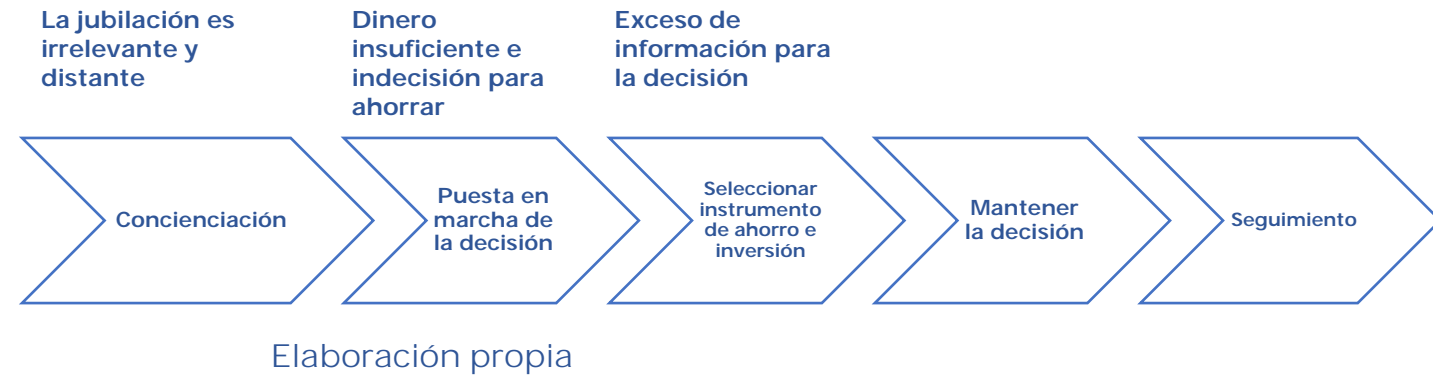
Caso de uso: resultados



Conclusión: Dos formas de aplicar economía conductual



Desafíos de comportamiento que nos impiden ahorrar lo suficiente para nuestra jubilación



Proceso de la arquitectura de la decisión para el ahorro para la jubilación

Proceso que identifica las principales decisiones, los momentos de fricción y las posibilidades de utilizar “nudges” (Thaler and Sunstein, 2008).

Nuestra propuesta: **Save More Tomorrow™**, (Thaler and Benartzi, 2004) ..

Tres “nudges”: Tomar ahora una decisión de esfuerzo en el futuro. El programa se mantiene hasta que la persona decide activamente abandonarlo, la inercia trabaja a favor del ahorro. Vincular los incrementos del ahorro con los aumentos salariales futuros evita la aversión a la pérdida.

Resultados

1 Opt-out 2016 el 14,9 % y 2017 el 22%



2 Resultados significativos en el incremento de la aportación media

	Number of workers	Average contribution in 2015 (€)	Average contribution in 2016 (€)	Increment (%)	t-test	p-value (one-tailed test)
All workers in <i>Ahorra+</i>	240	593	1,106	86.5	6.9	0.000
Men	93	759	1,483	95.4	5.7	0.000
Women	147	489	868	77.5	4.3	0.000
Under 35 years	36	72	512	611.1	4.6	0.000
35–45 years	134	413	906	119.4	4.6	0.000
46–55 years	60	1,161	1,680	44.7	3.8	0.000
More than 55 years	10	1,607	2,619	63.0	1.9	0.043
Low salary	39	165	373	126.1	2.6	0.007
Lower-intermediate salary	51	241	571	136.9	5.5	0.000
Upper-intermediate salary	67	651	1,272	95.4	3.6	0.000
High salary	83	968	1,648	70.2	4.6	0.000



UNIVERSITAT DE
BARCELONA

Jesús García

jesusmaria.garcia@ub.edu

José Vila

jose.e.vila@uv.es

Gracias



[Características](#) [Modulos](#) [Profesorado](#) [Preinscripción](#) [Noticias](#)



Economía del Comportamiento

Experimental y aplicada a negocio

Curso de Posgrado de la Universidad de Barcelona

[¡Realiza tu presinscripción ahora!](#)



FORMATO

ONLINE
Sesiones en directo



DURACIÓN

Curso académico
4 h jueves tarde



30

Créditos ECTS



750

horas curso

<https://www.ub.edu/economiadelcomportamiento/>



COL·LEGI
D'ACTUARIS
DE CATALUNYA

actuaris@actuaris.org
www.actuaris.org