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Law and economics analysis of EU GDPR

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» Entailments and controversies of GDPR

▶ First update of the framework of data protection directive since 1995

- » Centrality of the internet in cross-border exchange, production supply-chains and citizenry
 - ▶ 21% of all economic growth of past five years attributed to the internet
 - ▶ Biggest impact is on services industries, representing 75-80% of all economic activities amongst EU members states
 - ▶ New economic interdependence – extra-EU exports represent 17% of GDP in EU27
 - ▶ 50% of developing country exports in services depend on the internet (UNCTAD)

▶ Key elements of the COM proposal

- » Moving from directive to regulation
- » One size fit all approach, regardless of data types
- » Explicit consent
- » New or 'harmonised' administrative obligations
 - ▶ Data processing officers (except small enterprises), 10% of large sized enterprises
 - ▶ Data protection impact assessments
 - ▶ Data breach notification
 - ▶ New institutions
 - ▶ EU wide liability similar to competition law, fines of 0.5 to 2% of global turnover
- » The right to be forgotten
- » Restriction for foreign economic operators: No transfer of EU citizen data as a starting point

» Law and economics analysis of the proposed EU General Data Privacy Regulation (GDPR)

► Economic analysis of a multi-layered problem

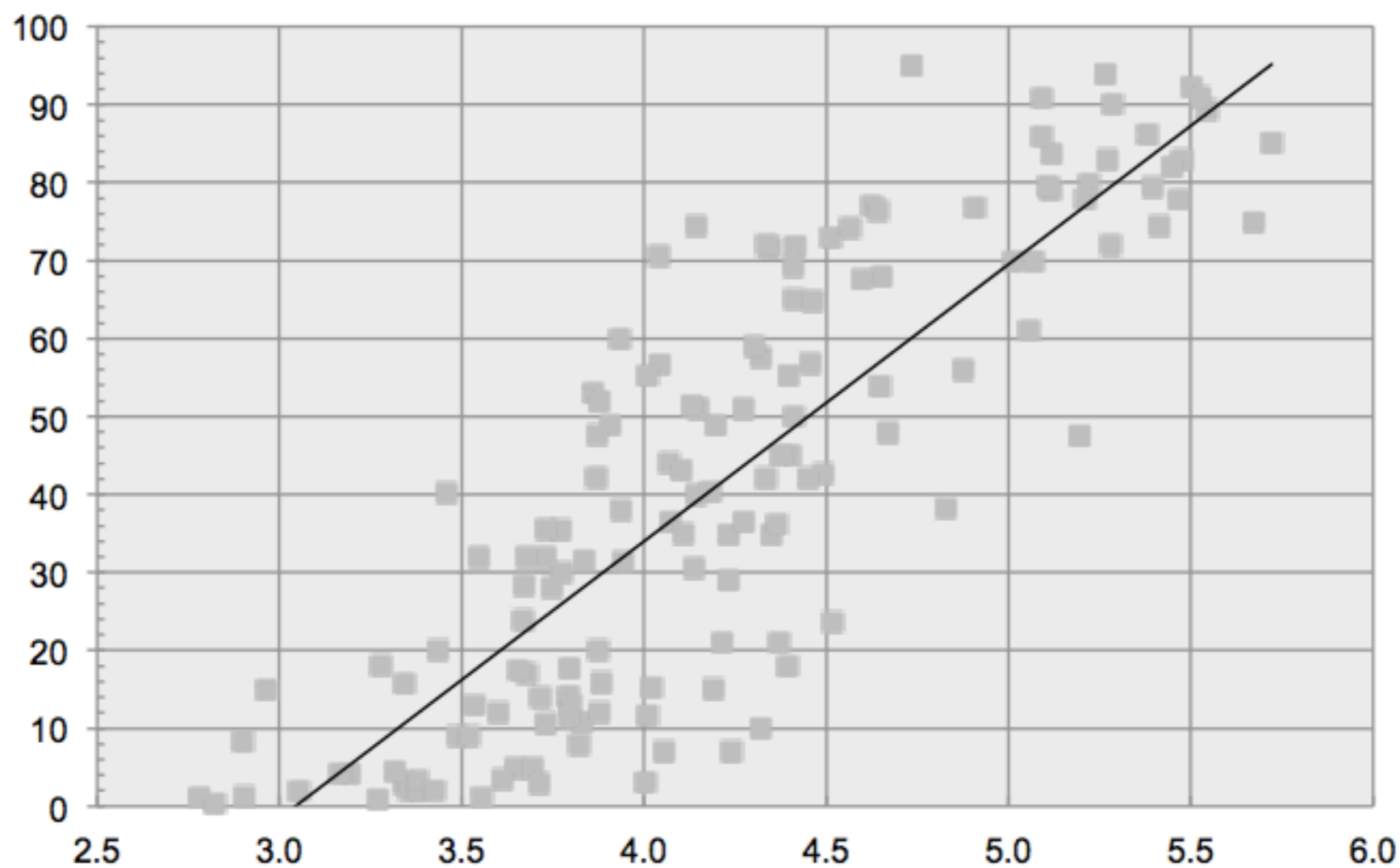
- » Comparison of several policy approaches to a policy objective
- » Economic implications, costs of implementation, cost and benefit analysis
- » Allocation efficiency, Pareto efficiency or 'buying off' losers
- » Redistribution, political economy
- » Extraterritorial (cross-border) effects between economies

► Data privacy laws and regulations have dynamic impact:

- » Economic restrictions leading to production loss vs. legal predictability
- » Internal trade efficiencies (loss or gain?) vs external trade and investment barriers
- » Affects global trade flows
- » Intermediate and final price changes
- » Shift in consumption vs market confidence
- » Consumer welfare

» Internet usage is a key determinant for economic competitiveness

Correlation between competitiveness and Internet usage
(Global Competitiveness Index [x-axis] vs. Internet usage as % of population [y axis])



Source: World Economic Forum, Global Competitiveness Index, 2011-2013

» How services supply-chains are currently enabled

▶ Equivalent vs adequate

- » Andorra, Argentina, Canada, Faroe Islands, Guernsey, Isle of Man, Israel, Jersey, New Zealand, Switzerland and Uruguay

▶ US Safe harbour framework

▶ Binding corporate rules (BCRs)

Share of world trade in services

World top 15 Services traders (80% of world trade)	Share of world services trade	'Adequate' privacy legislation
EU27	23.5%	
United States	15.1%	No*
China	6.9%	No
Japan	4.9%	No
India	4.7%	No
Singapore	3.8%	No
Korea, Republic of	3.2%	No
China, Hong Kong SAR	3.1%	No
Canada	2.9%	Yes
Switzerland	2.4%	Yes
Russian Federation	2.2%	No
Australia	2.0%	No*
Brazil	1.7%	No
Norway	1.6%	EEA country
Thailand	1.5%	No

Source: IMF EBOP 2011; European Commission, DG Justice
 (* Recognized as adequate for air carrier PNR data only)

» Methodology and assumptions

▶ A computable general equilibrium model (CGE), using GTAP 8

- » Acknowledged multi-region and multi-sector framework, used for international policy analysis
- » All basic commodities, services and utilities
- » All economies in the world grouped into **the EU**, the **equivalent** countries, **the US**, rest of the world (**RoW**)

▶ Cost calculations based on European Commission's own impact assessments

- » Additional governmental costs estimated by the Government of UK (UK ICO)
- » Only unquantified “boost” in exports foreseen by the European Commission

▶ Cost impact only applied on select part of the services industry

- » Inside the EU
 - ▶ Cost applied only according to use of data processing services
 - ▶ Hampering the factor productivity of capital and skilled labour only
- » Exporters into the EU face various degree of restrictions and increased cost of trade
- » Only indirect effect when services are inputs to other industries

▶ No benefits estimated, we seek the gains necessary to offset known costs

- » 2.9 bn in cost reduction from harmonization envisaged by the European Commission
- » Boost demand (and competitiveness) and consumer confidence thanks to a safer and consistent regulation

» Three scenarios of GDPR

▶ **Baseline**

- » Current state of economy, based on 2012
- » Before the implementation of GDPR

▶ **Scenario one (s1) – least restrictive outcome**

- » Internal costs introduced to the EU economy
- » EU equivalent countries can continue to trade as today
- » Trade with the US face additional costs from aligning with new regulation
- » RoW trades same as today

▶ **Scenario two (s2) – Strict implementation**

- » As per above
- » Personal data can no longer be transferred to the US and the RoW
- » Switch data processing capacities inside the EU or equivalent countries
- » Increasing costs in service consumption mainly affected by GDPR

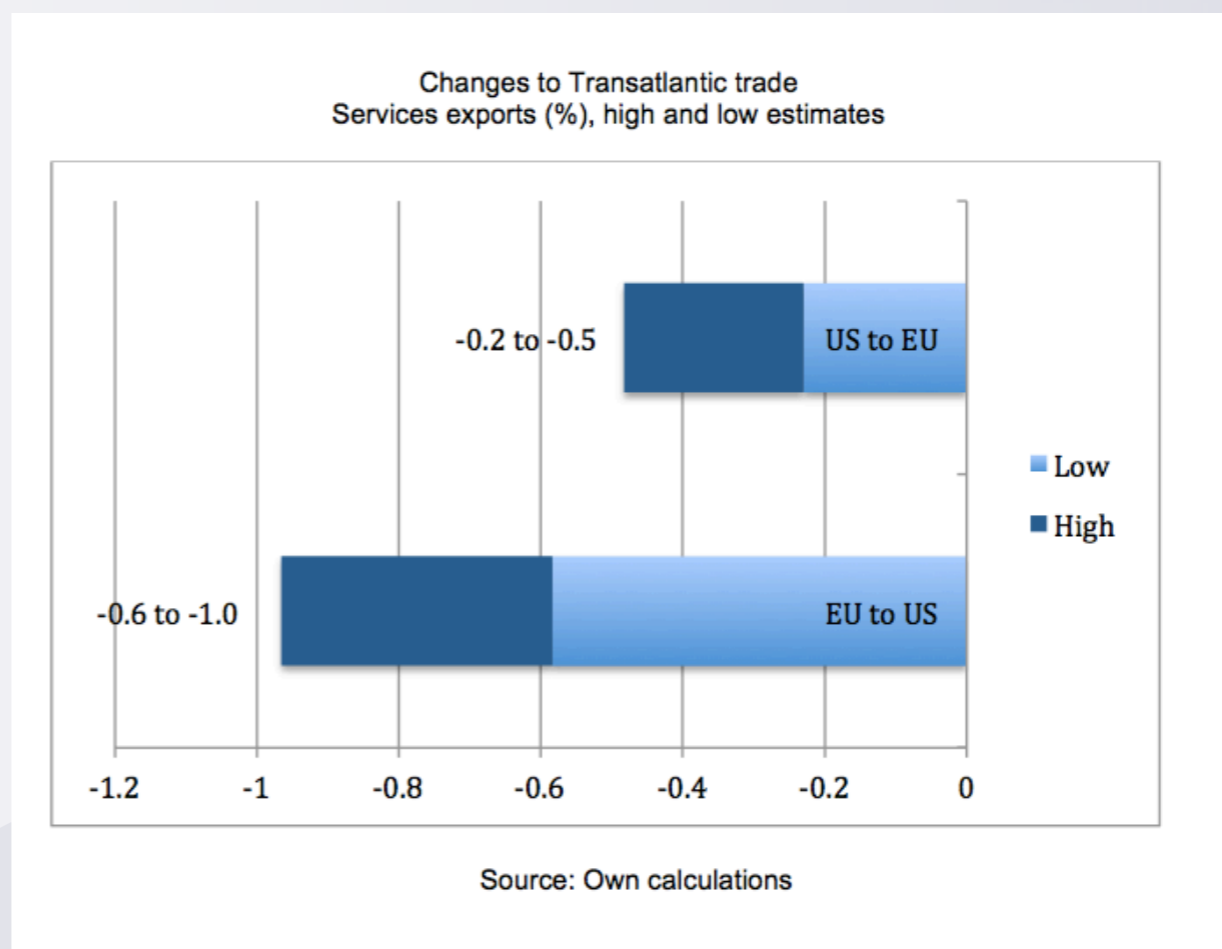
▶ **Scenario three (s3) – Implementation of right-to-be-forgotten rule**

- » As per above
- » Removal of all personal information upon request
- » Full technical implementation is “technically impossible” (ENISA)
- » Potential effect of RTF on production factors in entities based in the EU
- » Will effect others, too, but result of “model” rather than “in model”

» Scenario 1: least restrictive

► Primarily a question of EU/US economic exchange

- » The transatlantic marketplace: half of world GDP, 3 trillion USD (2.4 trillion euro) in bilateral investments (Eurostat)
- » The US is the largest investor in the EU, the largest importer from the EU
- » Share of services in transatlantic trade steadily increased over the past ten years, peaking at 42% (Eurostat)
- » Change in EU competitiveness because of increase in service input prices – that, in model, affects EU exports to the US



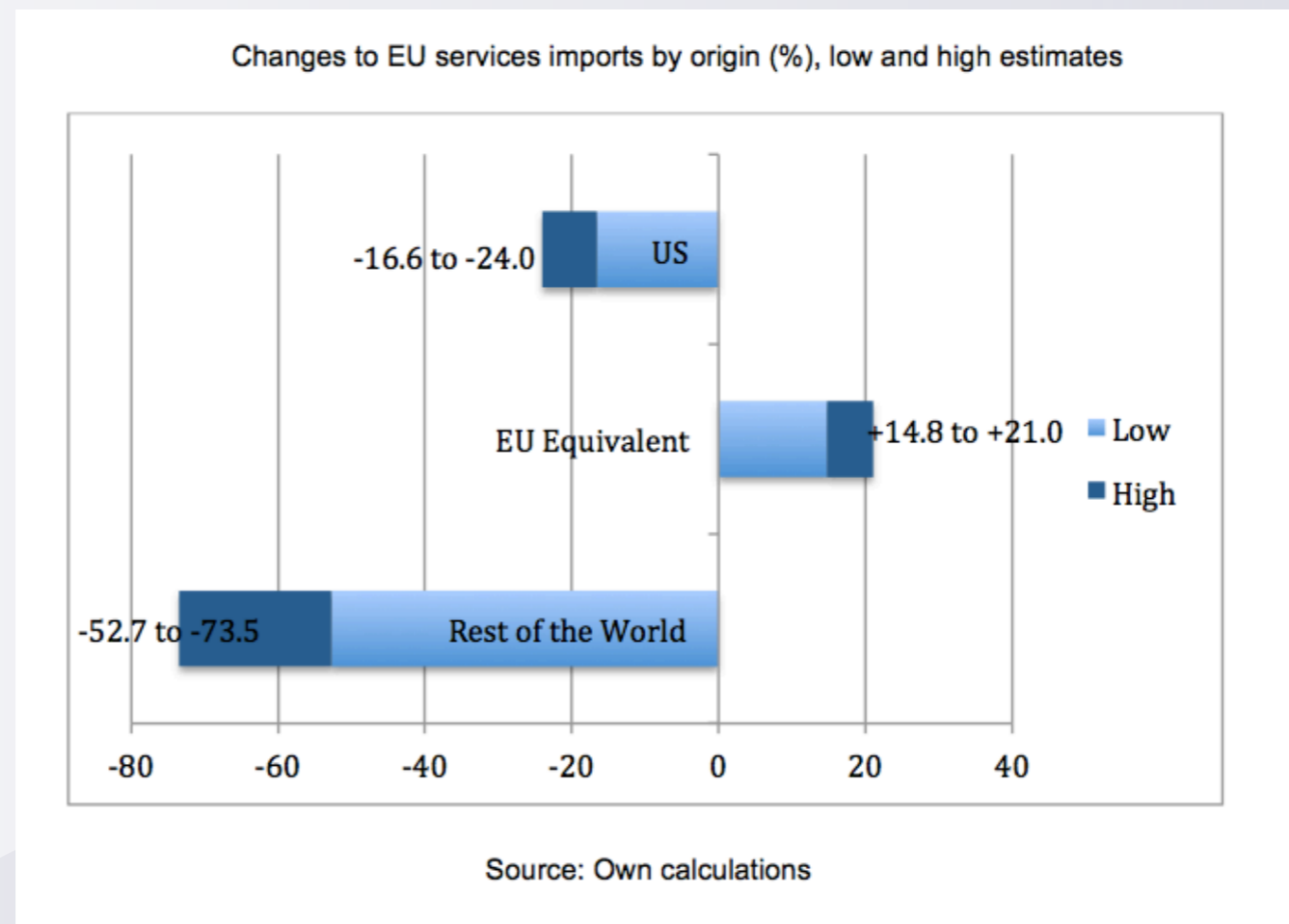
» Scenario 2: strict implementation

► Assumption that no data transfer can be made

- » MCCs, BCRs, intra-organisational transfer assumed to be blocked

► Price shocks on the supply side

- » Foreign operators investing in EU data processing capacities, or leaving EU market
- » Skilled labour in ICT is 30% more expensive in the EU compared to the US; 60% compared to processors in the rest of the world
- » Data processing is 15-58% of input cost in production cost of the services sectors – leading to effective price increases 4-41%

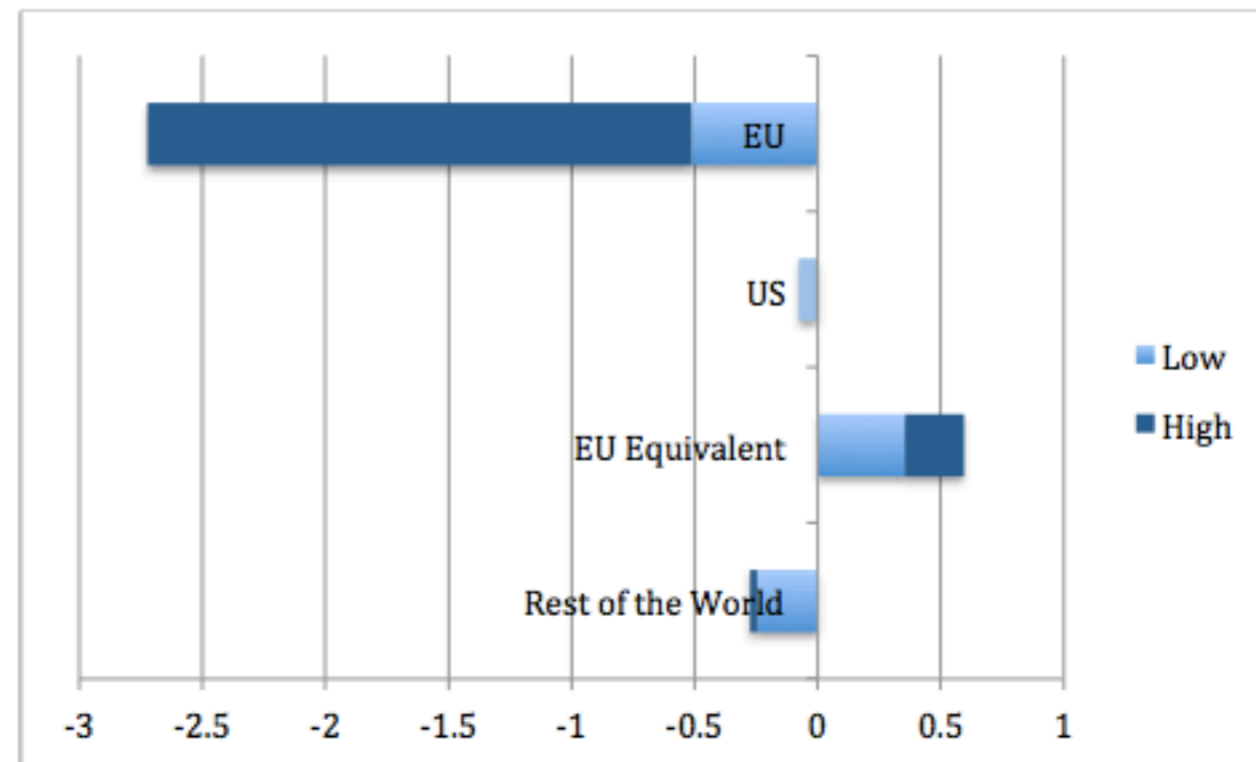


» The right to be forgotten

► Costs on data processors

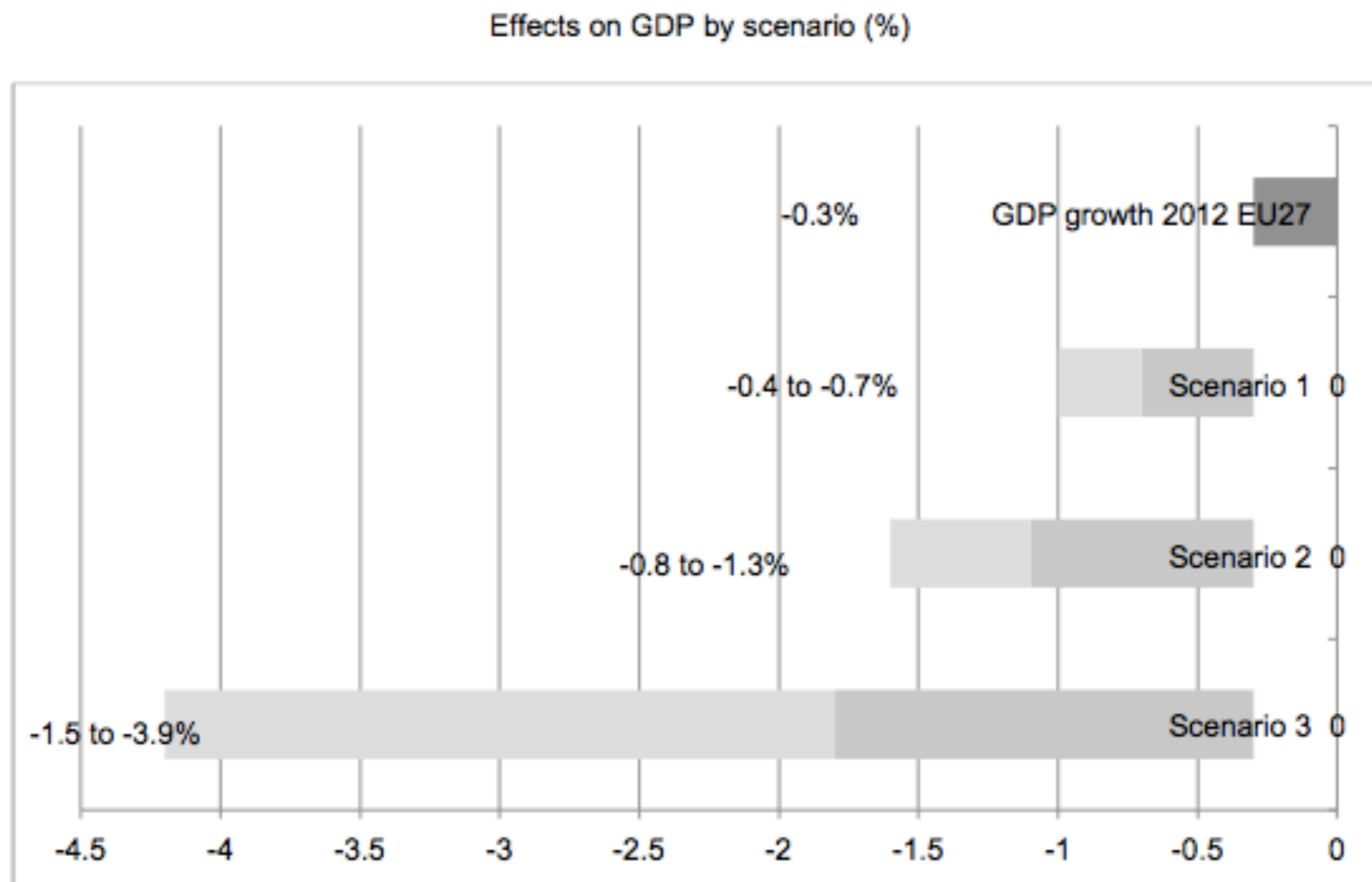
- » UK Case studies show average 110,000 GBP to the retail sector, up to 500,000 GBP
- » Additional costs of at least 9bn bn Eur to the European economy (1% of turnover)
- » Factor productivity losses of -0.64% to -7.98%

Changes to services output (%), low and high estimates

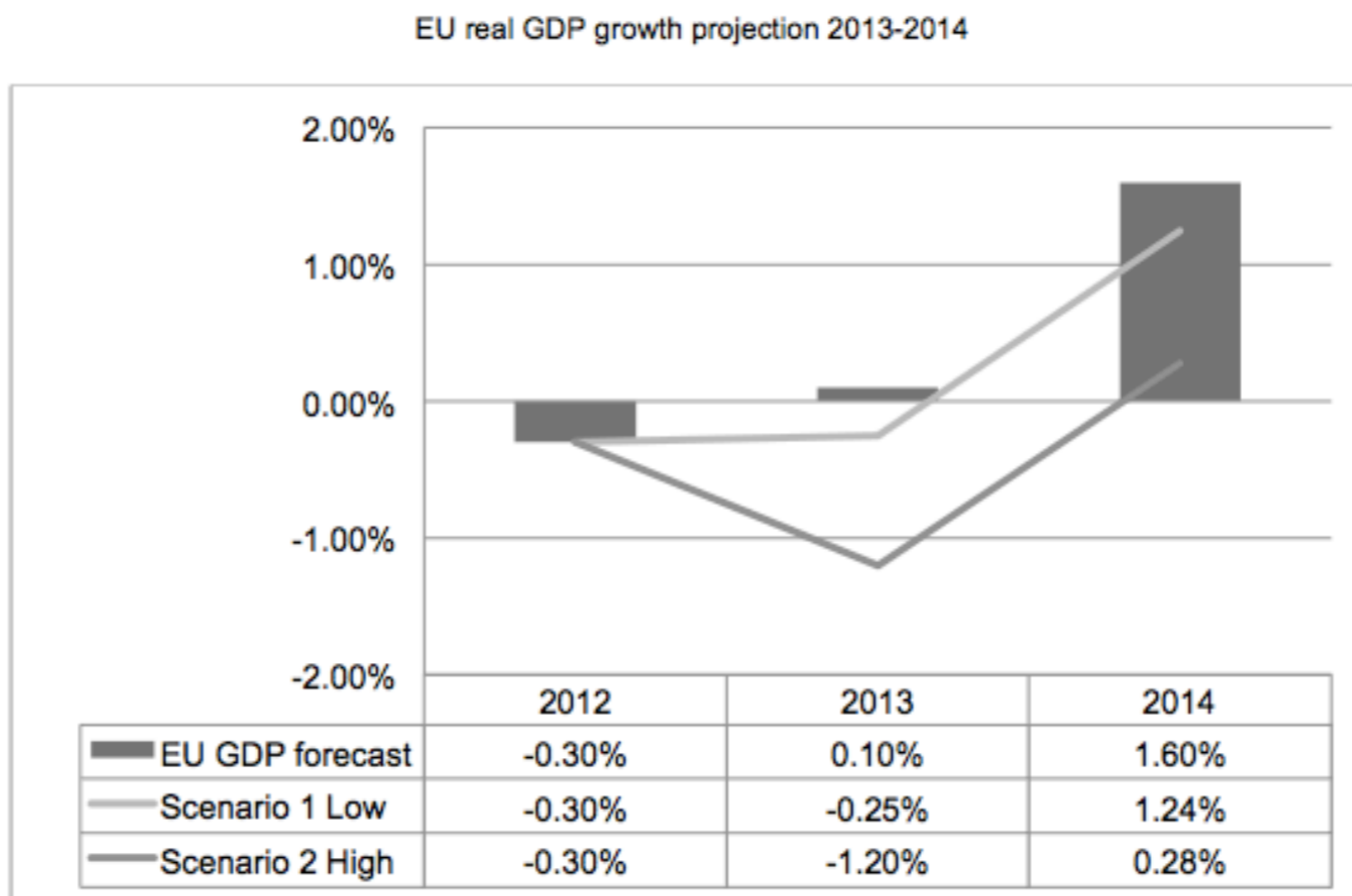


Source: Own calculations

» Summary: impacts on the total EU economy



» Summary: impacts on the euro crisis recovery



Source: European Commission; own calculations

» Summary: social aspects

► EU Consumer welfare loss

- » Scenario 1 (least restrictive): 624 euro per household and year
 - No welfare gains on any of the other groups of economies
- » Scenario 2 (strict implementation): 1041 euro per household and year
 - Very minor welfare gain for 'equivalents'
- » Scenario 3 (addition of right to be forgotten): 3512 euro per household and year
 - Less welfare gain for 'equivalents'
- » In all scenarios, ~90% of all welfare losses in the world occur in Europe

► Offsetting the negative effects

- » All final consumption must be boosted by at least 13%

» Summary: Policy aspects

▶ Privacy as a fundamental right

- » European institutions and agencies are exempt in GDPR – extended to member states
- » Vertical relation between state and citizen, but regulating horizontal relation between private entities
- » This mandate on private contracts (and non-contractual parties) applied extraterritorially

▶ Redistributive effects

- » Horizontal economic measure with little internal redistribution
 - ▶ “Reverse progressive” tax on SMEs, private consumption (vs. large multinationals)
 - ▶ Services (vs government services, agriculture),
 - ▶ Efficiently run (exporting) firms vs poorly run companies
- » Factor productivity losses slowing down the EU economy in relation to others
- » Primarily a loss in consumption through cost rises, leading to job losses, e.g. Welfare
- » “Moving wealth from the EU to Switzerland”

▶ Why does trade impact affect the EU negatively?

- » Global disruptions on trading patterns – Single market is the world’s largest market hub
- » The EU largest services exporter in the world – due to superior efficiency
- » Productivity losses punish the economy than import substitution helps it
- » Increasingly mercantilist and unilateral nature of EU regulations

▶ Policy options