DEUTSCHE BUNDESBANK
EUROSYSTEM

Towards integrating Fintech into statistical classification systems

A process oriented approach

Ulf von Kalckreuth, Principal Advisor, DG Statistics, Deutsche Bundesbank

IFC-BNM Satellite *Statistics on Fintech: bringing together demand and supply to measure its impact*
Bank Negara Malaysia, Kuala Lumpur, 17 August 2019

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Joint work with Norman Wilson, Deutsche Bundesbank

What is Fintech?

- Fintech not recognised in Official Statistics.

- Also outside statistics, there is no unique characterisation of what Fintech is.

- Schueffel (2016) suggests: "Fintech is a new financial industry that applies technology to improve financial activities".

- FSB definition: "**Fintech is defined as technology-enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on the provision of financial services**."

- These and other definitions have three common features:
  - financial services
  - technology
  - innovation

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Cannot be used as a basis for classification – as the **content of the descriptor will change over time.**

Consistency requires that a **firm that is Fintech today will be Fintech tomorrow** if it keeps on producing the same services

What is Fintech?

EBA Study on European Fintechs

4 broad clusters of Fintech activities:

1. Credit, deposit, and capital raising services
2. Payments, clearing and settlement services
3. Investment services/Investment management services
4. Other financial-related activities.

- In around 40% of the cases, these firms **were not subject to any regulation or registration regime**, national or international, or the regulatory status could not even be clarified. Only 9% of firms are credit institutions under the Capital Requirement Directive.

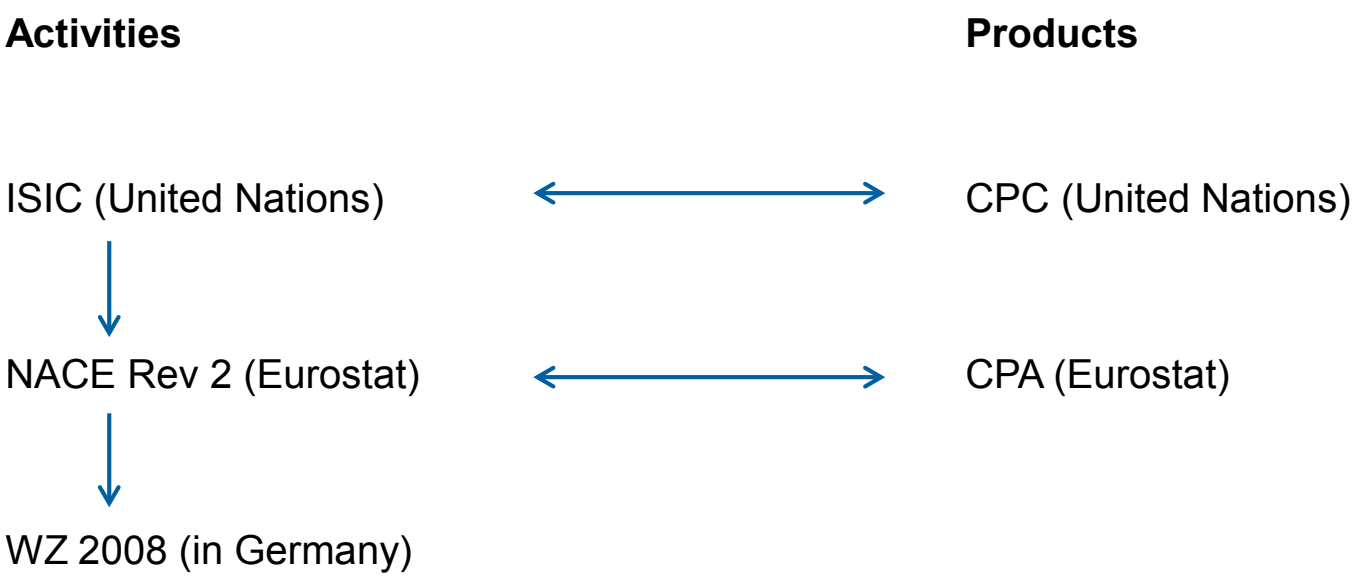
- Regtech, Insurtech and Proptech as additional fields worth to be considered.

What is Fintech?

- The essential contribution of Fintech companies is their use of new technological approaches to gather, process, and disseminate information, and offer services -- either to other companies or to end-users -- on the market as **links in the financial value chain.**
  - Crypto-assets possible exception – can be regarded as a genuinely new product
- Many of these services formerly located under the roof of a classic financial institution.
- New technologies massively roll back the frontier between what needs to be provided inside a firm in organised labour partition and what can be traded over the market.
- If statisticians continue relying on reports from classical financial institutions, they run the risk of surveying half-empty shells and missing the most important dynamics. A prominent example is N 26, a German bank offering its services in 24 countries.

Fintech in current classification systems

Classification of



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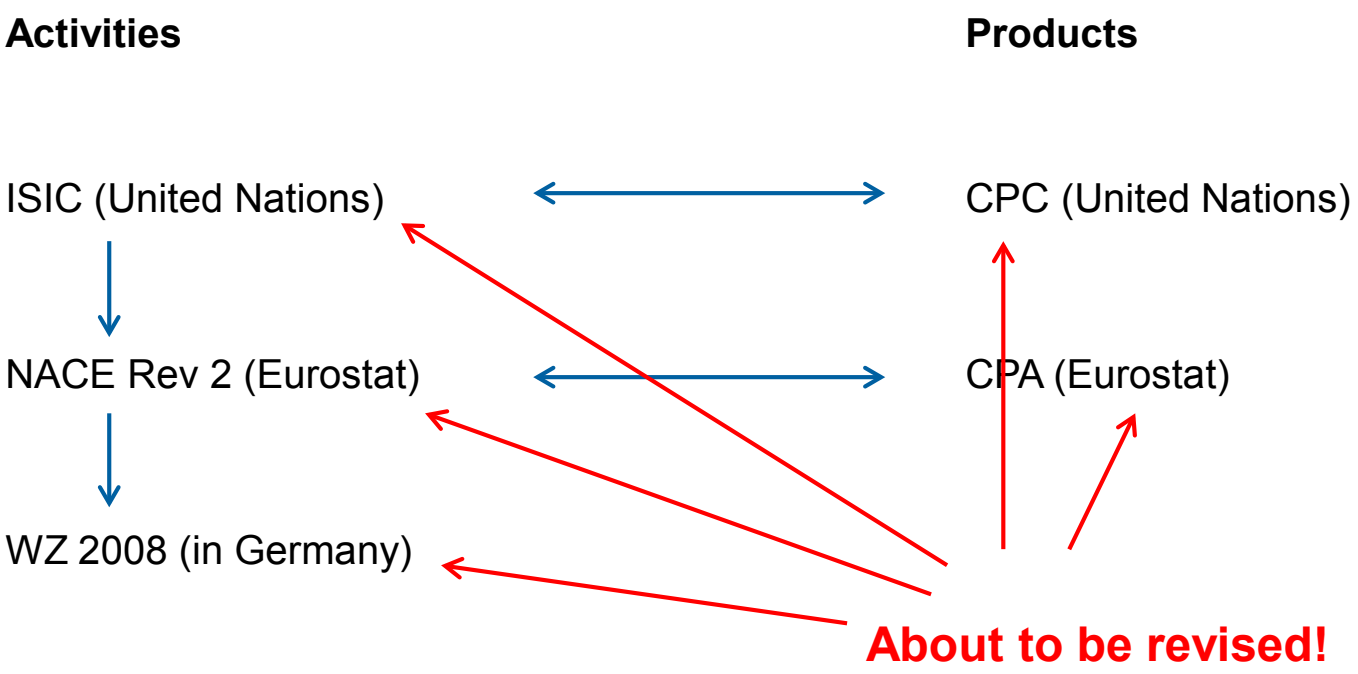


2016 report on FinTechs in Germany for the Ministry of Finance

- Dorfleitner and Hornuf: report on German FinTech Market, collected data on **market volumina** for the period **2007 to 2015**

- **A total of 433 FinTechs in Germany** identified.

- Authors note: A general definition for the term FinTech not possible.

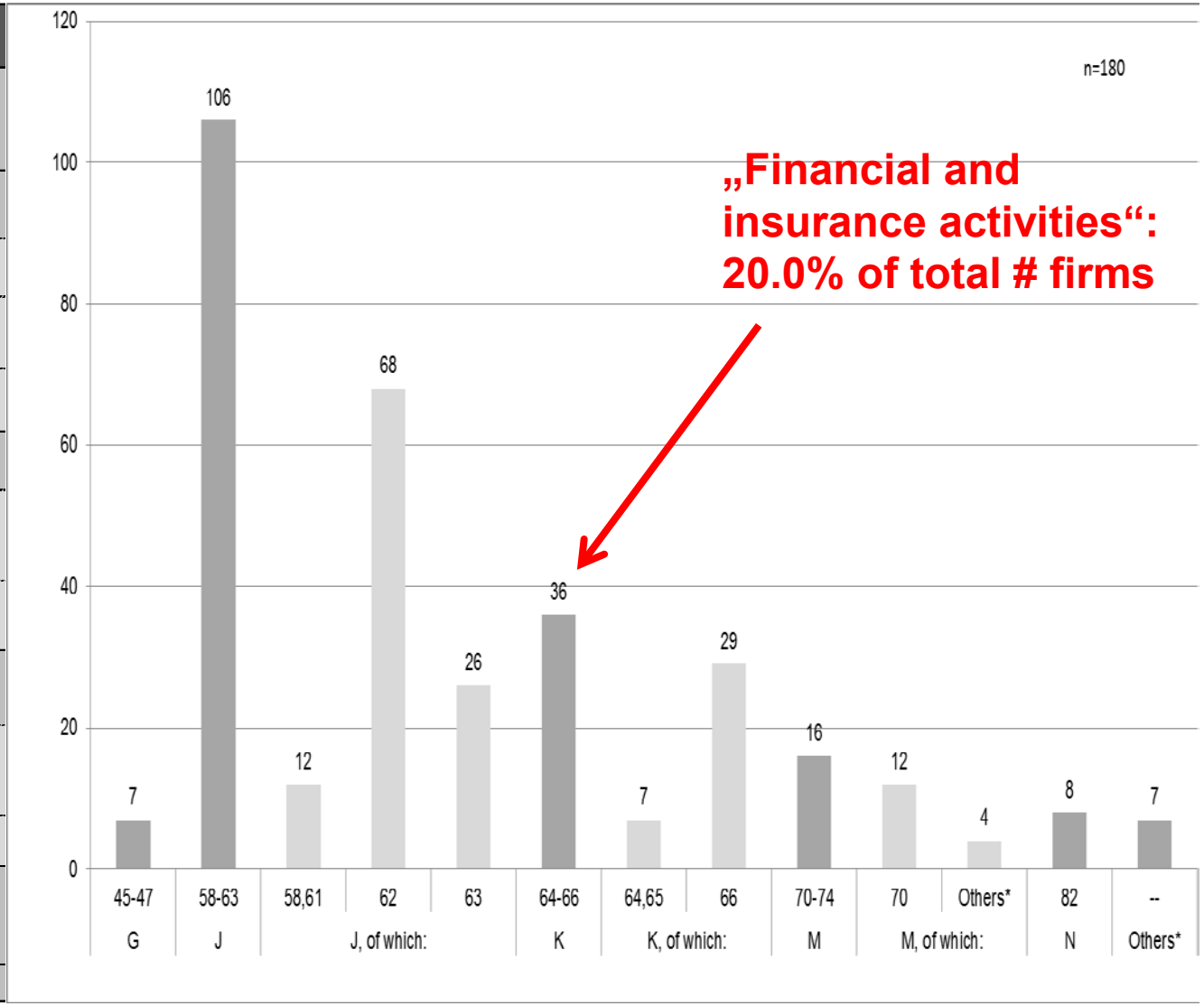
- **FinTech segments**:
  1. Financing (crowdfunding, credit and factoring)
  2. Asset Management (robo-advice, social trading, etc.)
  3. Payments (alternative payment methods, blockchain and cryptos, etc.)
  4. Other FinTechs (insurance, search engines and comparison sites, etc.)

Statistical analysis based on 2016 firm data collection

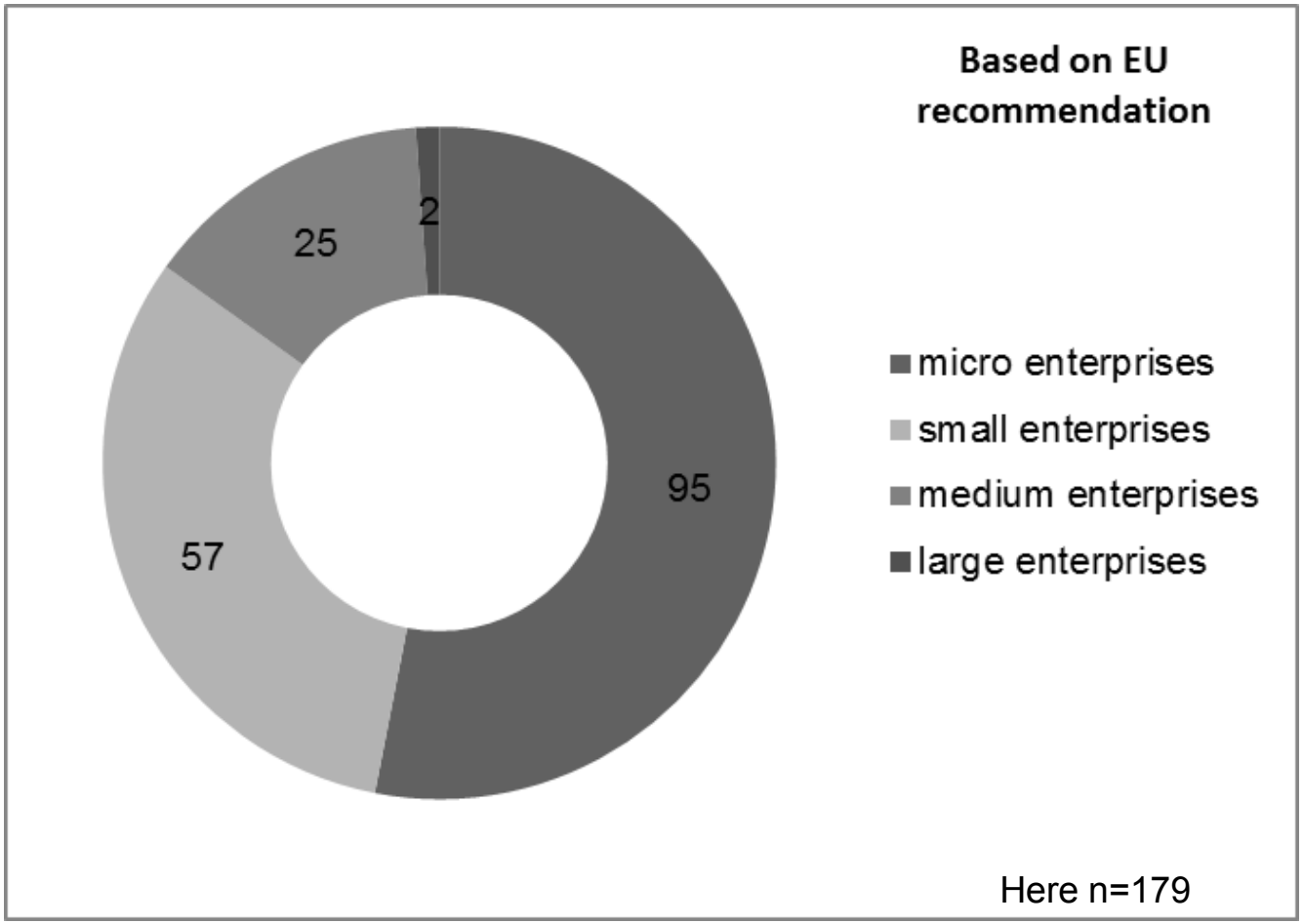
- **179 of 433 FinTechs** matched to the 2016 NSI business register
- German economic activities transformed into **ISIC** (UN International Standard Industrial Classification of All Economic Activities)

Number of Fintechs and their distribution on ISIC division clusters

ISIC Section	ISIC Division(s)	Description
G	**45-47**	**Wholesale and retail trade; repair of motor vehicles and motorcycles**
J	**58-63**	**Information and communication**
J, of which:	58,61	58 - Publshing activities 61 - Telecommunications
	62	Computer programming, consultancy and related activities
	63	Information service activities
K	**64-66**	**Financial and insurance activities**
K, of which:	64,65	64 - Financial service activities, (…) 65 - Insurance, reinsurance and (…)
	66	Activities auxiliary to financial service and insurance activities
M	**70-74**	**Professional, scientific and technical activities**
M, of which:	70	Activities of head offices; management consultancy activities
	Others*	--
N	**82**	**Office administrative, office support and other business support activities**
Others*	**--**	



Number of Fintechs in enterprise size classes: micro, small, medium and large enterprises



Fintech employees and their distribution on ISIC division clusters

ISIC Section	ISIC Division(s)	Description
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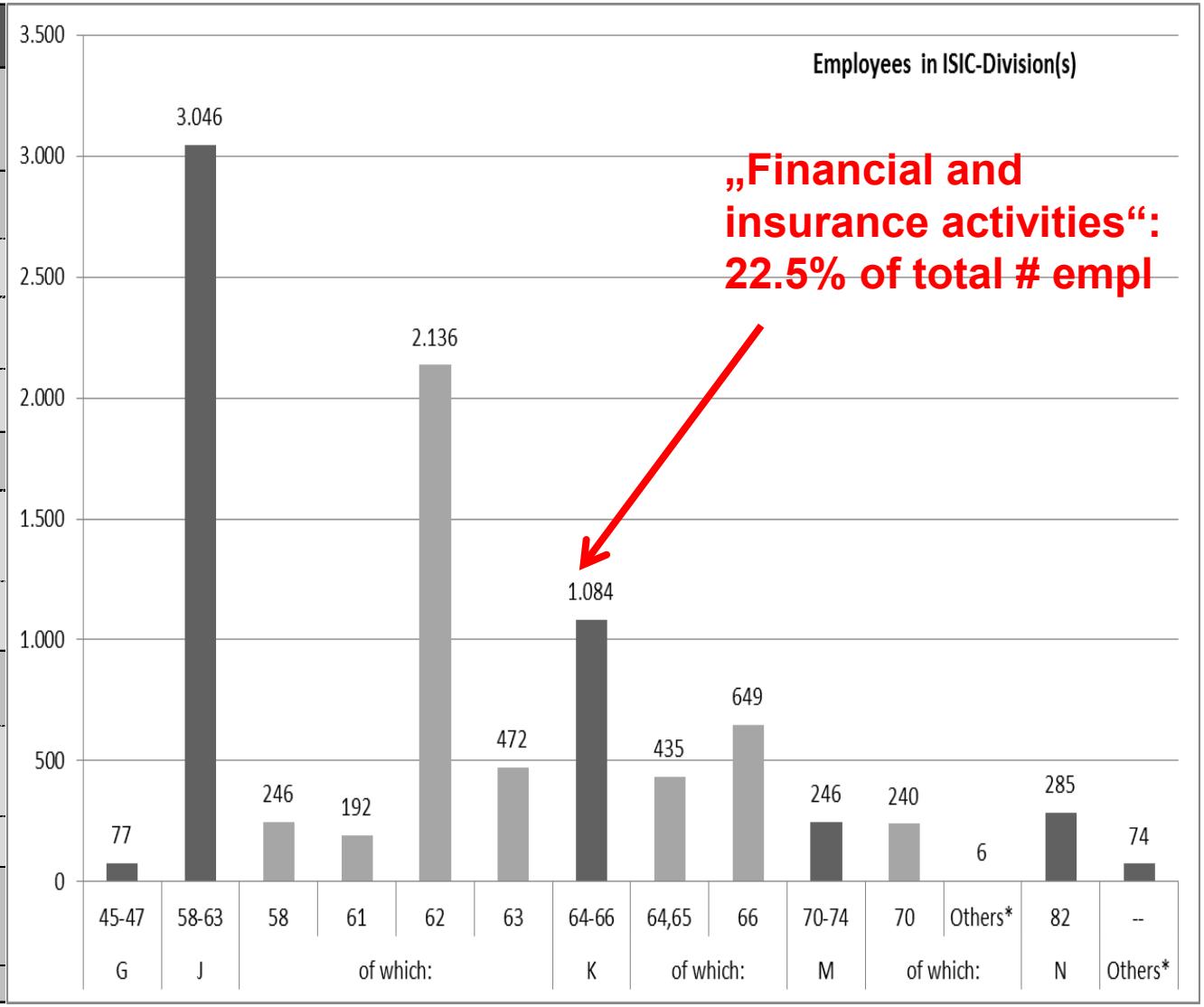


Fintech in current classification systems

Evidence from sample of **German Fintech firms from Report for Ministry of Finance:**

- Only a small part of identified firms are classified in ISIC Section K **„Financial and Insurance Activities“**
- Most of the rest is in Section J **„Information and communication“**
- This carries **fully over to the classification for National Accounts purposes**: Only **20% of identified firms are classified as S.12!**

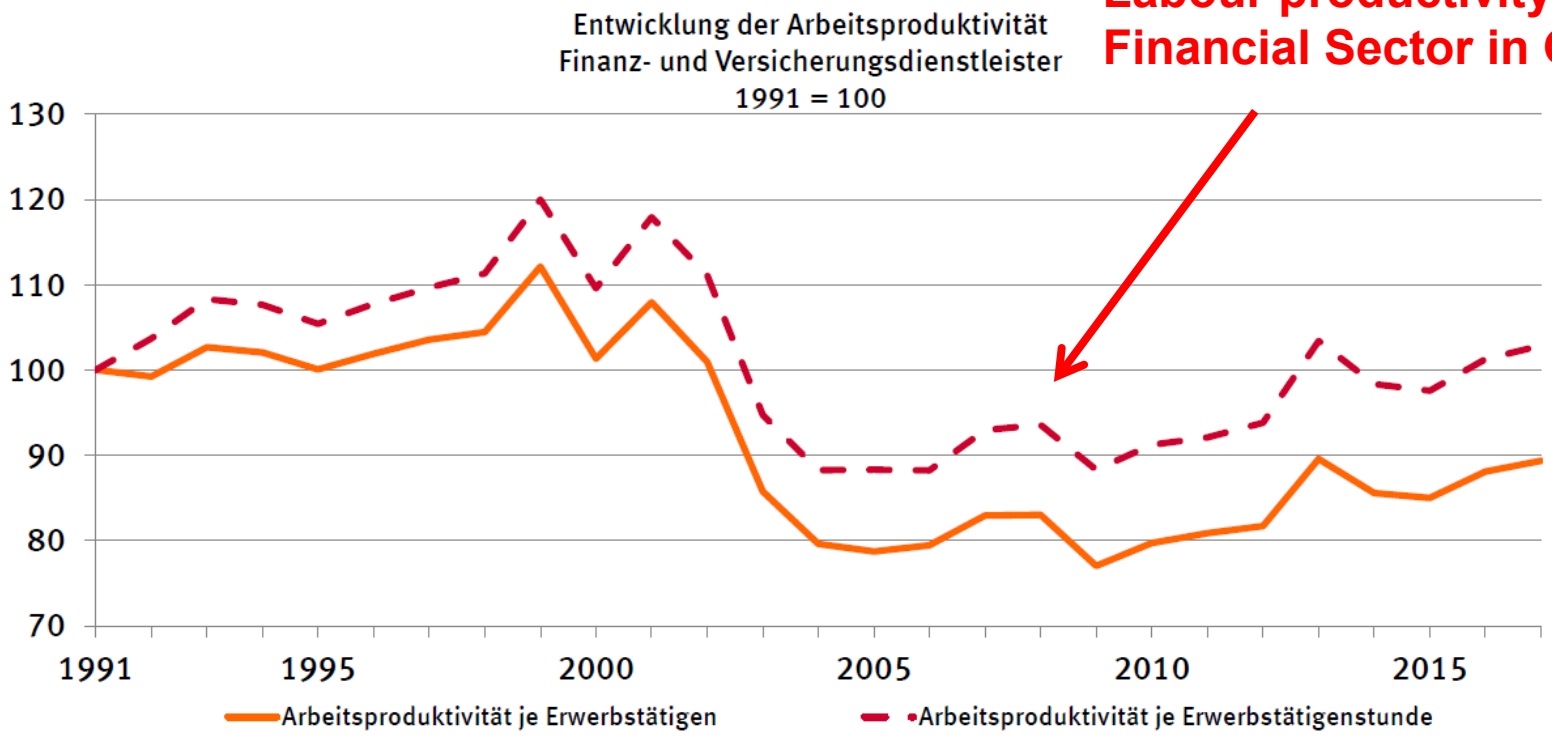
Fintech in current classification systems

A new productivity paradoxon?

wissen.nutzen.

3.3 Ergebnisse nach Wirtschaftsbereichen

Labour productivity in the Financial Sector in Germany



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28./29. Juni 2018

How to go about the revision? CPC as an example

Step 1

Defining areas of interest: What are the broad fields in which the advent of Fintechs may compromise the information value of existing reporting structures for central banks and other agencies? The result could be a list of broader product classes such as

- deposit services,
- credit granting services,
- corporate finance and venture capital services,
- financial transactions services (payments),
- brokerage and securities services,
- portfolio management services,
- pension funds services,
- insurance services, etc.

How to go about the revision? CPC as an example

Step 2

In each of these areas, with the help of specialists the *essential production processes* are isolated. For credit granting services this would be:

- acquisition of clients,
- handling credit application,
- assessing credit risk,
- pricing new credit contracts,
- managing credit contracts,
- managing default, legal services,
- information management, internal and external accounting,
- risk management,
- funding (capital market, deposits, "crowdfunding"), etc.

How to go about the revision? CPC as an example

Step 3

We need to make sure that all activities that consist in carrying out the processes in step 2 *in the context of producing credit granting services* are registered as such. Typically there will be a category for this kind of service, but not one that is specific to credit granting.

- In those cases, these services have to be separated from more general types of B2B (Business-to-Business) services of the same kind: managing a database of credit debtors must be held separate from managing other types of databases, e.g. on human resources. Handling credit applications is to be distinguished from other types of online sales platforms, e.g. for books or dating platforms.
- Based on this, new classes and subclasses can be formed, such as "data base services auxiliary to credit granting".

How to go about the revision? CPC as an example

Step 4

- One defined, the new products can be relocated to Section 7.1. of CPC, "Financial and related services“

- Same procedure for ISIC and NACE

Many thanks!