

Public intangible investments: a central banker perspective



Magda Bianco

Consumer Protection and Anti-money laundering

Bank of Italy

Rome, 12-13 September 2016

Outline

- Relevance of measuring private and public intangibles
- As a Central Bank, looking «outside» → our research on the role of intangibles in private and public sectors as a source of growth
- As a Central Bank, looking «inside» → our functions and outputs and relevance of intangible investments
 - one specific output/function: consumer protection and financial education
- Some conclusions: importance of considering «quality» (macro vs micro approach)

Relevance of accounting for intangibles

- Measuring correctly for investments in intangibles allows to properly account for increases in productivity and for growth
- First issue is the definition of investment in intangibles:
 - Investments in information, scientific, cultural assets
 - Investments in organizational competencies
 - Investments to create social infrastructures that increase societal welfare: education, health... But possibly other social infrastructures? Law/regulation, quality of public administration (e.g., justice...), social norms, social capital?

Relevance of accounting for intangibles

- Further issue is obviously measurement of output, especially in public non market sectors
- Both (what to include in intangibles and measurement issues) affected by the need to take into account «quality» of both investments and output
- ➔ These issues affect capacity to account properly for growth and hence also searching for sources of insufficient growth

The role of intangibles in Bol research

- Not specifically on measuring intangible investments in national accounting
- But substantial effort devoted to identifying the role of intangibles in explaining growth. A number of research projects:
 - a) Innovation in private sector
 - b) Weaknesses in Public Administration
 - c) Role of social capital
 - d) Weaknesses of civil justice

a) Private sector: project on innovation in Italian firms

Aim of the project:

- Build information on investments of firms in both R&D and ICT (and to a limited extent in organizational capital)
- Identify the relationship with innovation, productivity and employment
- Search the determinants of insufficient investments in intangibles

See: Bugamelli, Cannari, Lotti, Magri (2012)

a) Private sector: project on innovation in Italian firms

Results:

- Levels of IT – R&D investments low in international comparisons

But:

- Are returns to R&D in Italy lower than in other countries?
 - Not the case. Estimating a structural model of firm behavior for some EU countries, the coefficients for IT are in line with others.
 - Other determinants at work?

a) Private sector: project on innovation in Italian firms

Other determinants:

- firms' small size and family-based management model
- share capital less common than in other countries
- institutional and regulatory framework:
 - Restrictive regulation of the labor market (hampers reallocation of resources and discourages increases in production by innovative firms with potentially high but uncertain returns).
 - Greater share of temporary workers in a firm's workforce reduces R&D expenditure, patenting activity, profitability and TFP.

b) Weaknesses of public administration

Aim of the project:

- Evidence of limited effectiveness of Italian PA (see international rankings)
- Impact on performance of the economy
- Identify sources of ineffectiveness, among which:
 - i. Quality/characteristics of human capital
 - ii. Quality of management and managerial practices
 - iii. IT investments (e-gov)

See Palumbo, Giacomelli, Giorgiantonio, Occhilupo, Peta Rizzica, Tonello, (2015-2016)

b) Weaknesses of public administration

i. Quality/characteristics of human capital:

- age (45% with more than 50 years),
- competencies (greater than in private sector by less than in other countries),
- motivation (lower intrinsic motivation than in other countries),
- degree (in humanities and social studies 50%; 70% in strict PA).

Determinants of these characteristics:

- recruitment modes (rigid and formalistic, fragmented, irregular);
- employment policies (do not promote merit and competence) that do not attract more qualified personnel

b) Weaknesses of public administration

ii. Quality of management and managerial practices:

- In a context with multiple agency relationships, difficulty of measuring output, limited managerial independence..
- Bonuses/salaries substantially flat, affected only by age of manager; not by experience or specific competence

Determinants:

- Rules applied to all administrations without accounting for specificities
- Insufficient planning and definition of strategic objectives
- Insufficient managerial independence

b) Weaknesses of public administration

iii. IT investments/e-gov

- Backwardness in diffusion of e-gov: 20% of citizens; 78% of firms
- Strength in open data initiatives; weaknesses in supply of online public services

Determinants:

- Heterogeneity in IT development across administrations
- Limited interconnectedness
- Poor IT competencies in public administration
- Poor IT competencies among citizens

c) Social capital

Aim of the project:

- Defining and measuring (proxying) social capital
- Identifying impact on economic variables
- Searching for determinants (and hence policies):
effectiveness of public administration, legality/security,
education, voting system

See Barone, De Blasio, Sestito (2015).

a) + b) + c) Lessons learnt

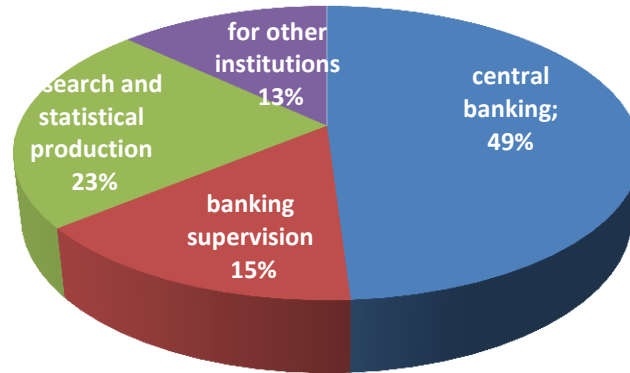
- ✓ Taking into account role of intangibles is essential to explain growth but insufficient just measuring their amount
- ✓ Need to take into account their «characteristics» and «quality» (especially in public sector)
- ✓ This together with the difficulty of measuring (non market) outputs makes evaluation difficult (but necessary to correctly account for growth) → complementarity of macro vs micro/case study approach

The role of intangibles in a central bank..

- A Central Bank is not a public administration (in national accounts included among financial institutions) but performs some “public functions” and offers a number of “non market” outputs.
- In Italy, specifically, the functions of the central Bank:
 - central banking and implementation of monetary policy
 - banking supervision (and resolution)
 - market and payment system supervision
 - statistical production and economic and financial analysis
 - other, including banking ombudsman, FIU...



The role of intangibles in a central bank..

- Among the costs (mainly for employees), increasingly relevant those for:
 - IT development projects: 2% of total costs (substantial increase in 2014)



- Training: 1.5% of total costs (higher intensity of technical training for banking supervision; increased managerial and behavioral training over last 10 years)

The role of intangibles in a central bank..

- Each function provides measurable and unmeasurable outputs (products and services):
- Central banking
 - Implementation of monetary policy
 - **Management of payment systems (TARGET2; TARGET2-securities)** 
 - Banknotes production and circulation
 - **Central government treasurer** 
 - Management of public debt
 - Management of reserves and financial portfolio

The role of intangibles in a central bank..

- Banking supervision
 - Regulation
 - Prudential supervision
 - **Consumer protection**
 - Anti-money laundering
 - Sanctions
 - Macro-prudential analysis

The role of intangibles in a central bank..

- Market and payment system supervision
 - Monetary policy markets supervision
 - Payment system supervision
 - Research and statistics
 - Economic analysis
 - **Statistics production**
- Relevance of intangibles. Difficulty with evaluating returns to investments also due to measurement of output issue

One function: consumer protection and financial education

Here perspective is on «production on a social infrastructure», rather than investments in intangibles, i.e. in ensuring «trust in financial system», especially after financial crisis that reduced confidence of customers in financial and banking system (due to asymmetric information and behavioral distortions, but also to perception of rent seeking in financial markets, see Stiglitz, 2015; Zingales, 2015).

Which instruments:

- Regulation (reducing information asymmetry and bargaining power with rules on intermediaries' conduct)
- Enforcement (public and private)
- Financial education

One function: consumer protection and financial education

Private enforcement

- Complaints management
- ABF (financial ombudsman)

Empowerment

- Financial education

Public enforcement

- Banking supervision (off and on site)
- Enforcement of compliance (dialogue with intermediaries; sanctions; prohibition; reimbursement orders)

Some conclusions

- Accounting for private and public intangibles relevant in explaining productivity and growth
- In non market sectors substantial effort to be devoted to measuring output and taking into account «quality» of investments (see results of Atkinson Report, 2005)
- Combination of macro vs micro approach is important
- Central banking has peculiarities but an effort in the same directions is important too

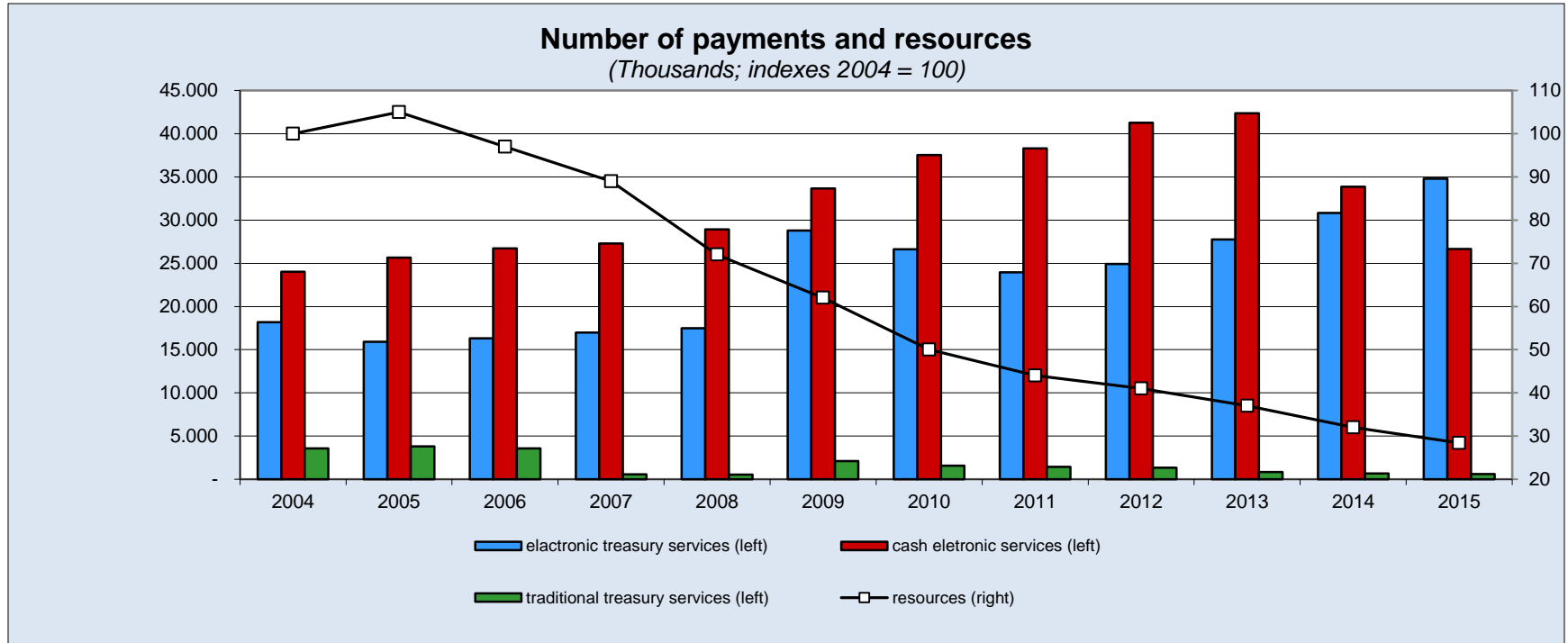


BANCA D'ITALIA
EUROSISTEMA

Thank you



Central government treasurer: increasing role of IT



Payments and securities

- **TARGET2** (operational management by Bank of Italy and Bundesbank): 340.000 transactions settled per day (1.835 bln € per day) in less than 5 minutes
- **TARGET2 Securities** (European platform for the settlement of securities transactions, developed by BI with the central banks of France, Spain and Germany and now managed by BI with the Bundesbank): 86.000 securities transactions settled per day (498 bln € per day)

