



Banknote recirculation

Euro Cash Users Group

Meeting at the ECB, Frankfurt, 2 July 2015

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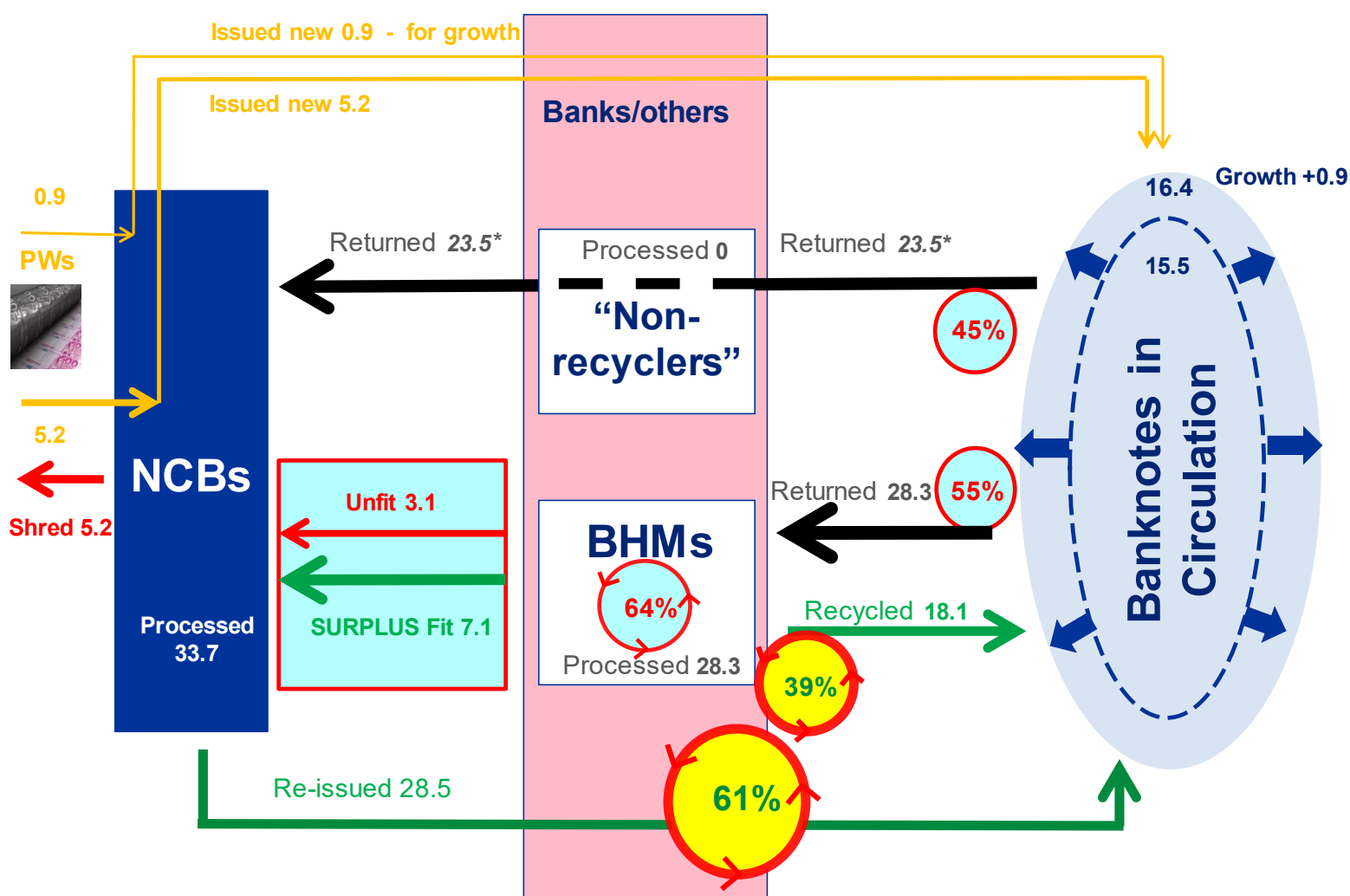
ECB - Directorate Banknotes

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1. Modelling of recirculation ratios (aggregated model, without manual handling)

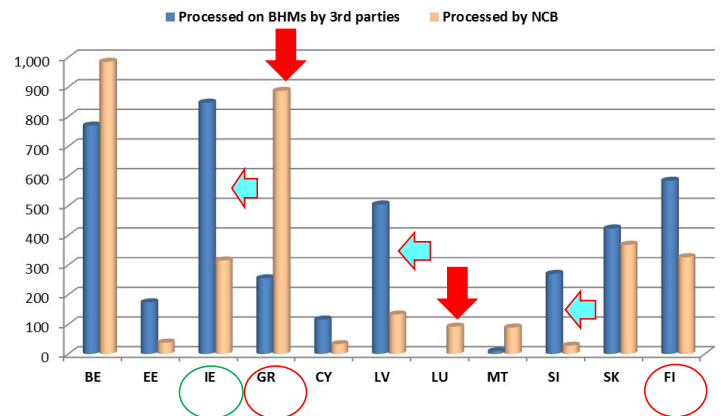
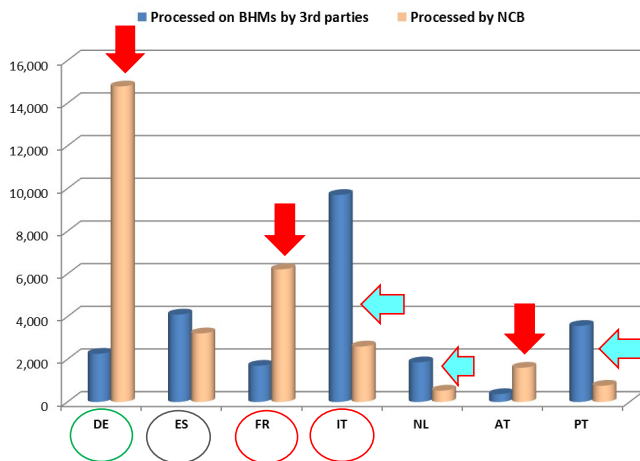


Source: ECB CIS2, mid-2013 to mid-2014, in billions of pieces

2. NCBs' involvement in national cash cycles

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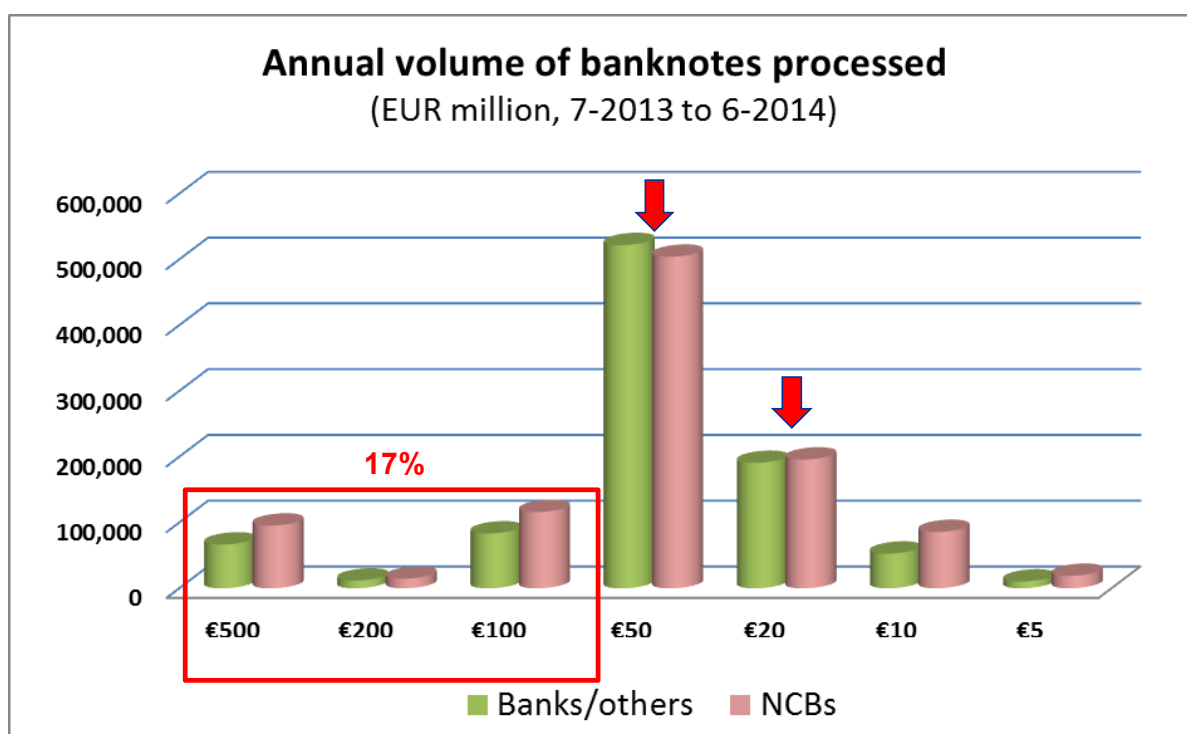
Processing volumes of NCBs and banks/cash handlers



- ➔ Very pronounced differences in NCBs' involvement in the cash cycle
- ➔ NCBs have started defining targets for their operational involvement in the cash cycle
- ➔ ECB oversees developments

3. NCB processing vs. third parties processing

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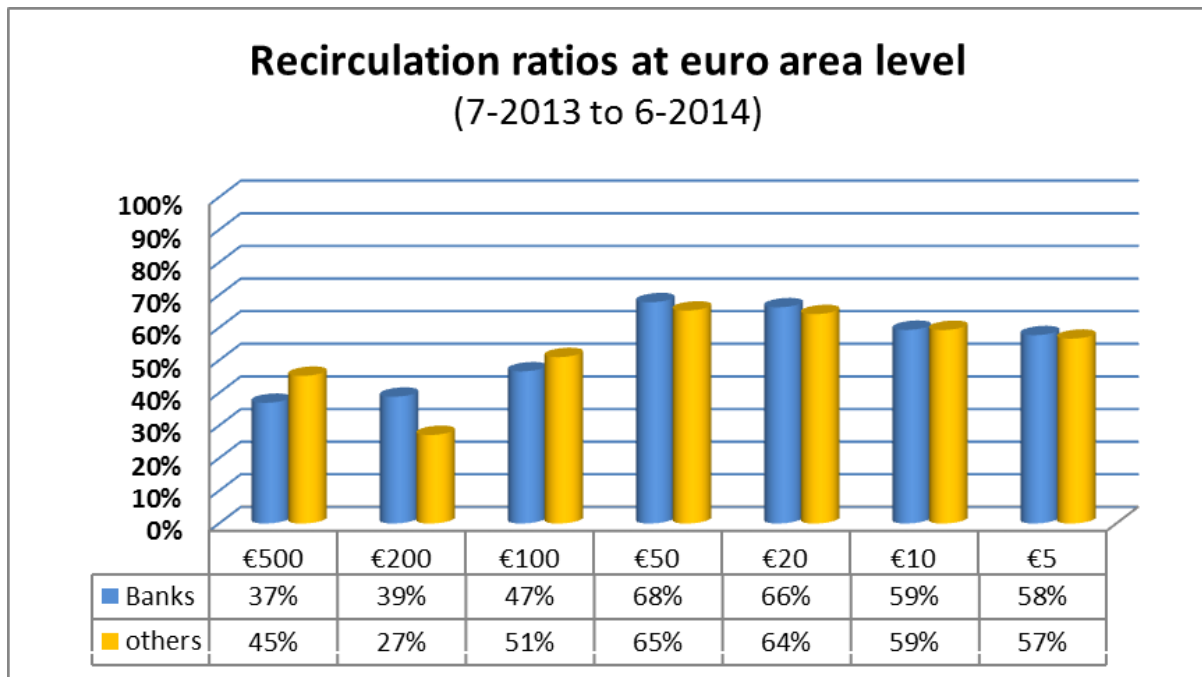
- Banks/cash handlers processed EUR 937 billion
- NCBs processed EUR 1,030 billion

Source: ECB CIS2 mid-2014, in billion of pieces

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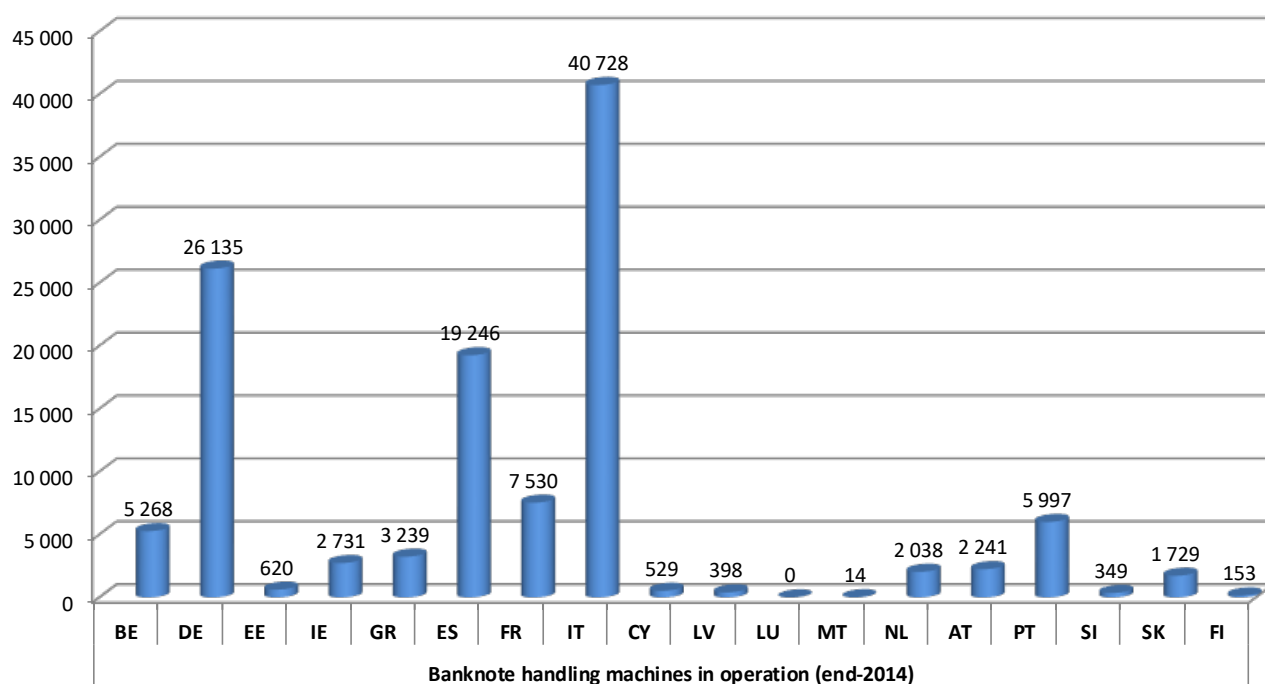
4. Recirculation ratios: banks vs. other cash handlers



- Recirculation ratios highest for €50, €20 and €10 (preferred ATMs denominations)

5. Banknote handling machines in operation in euro area

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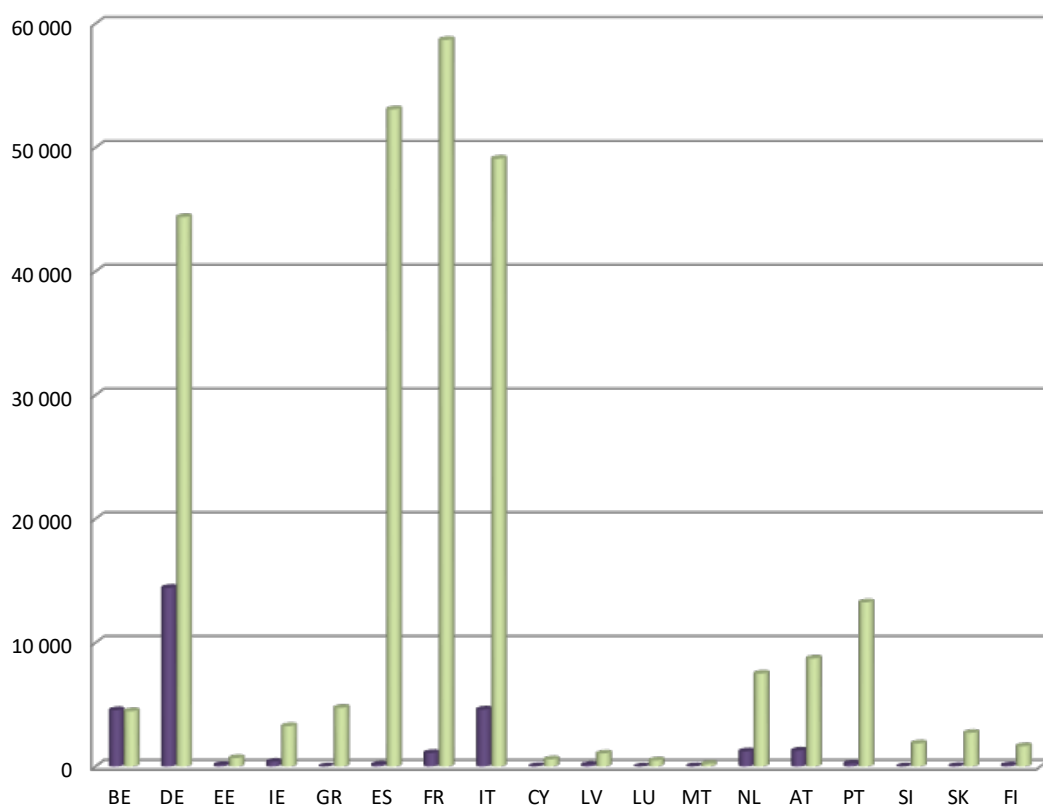
- Around 119,000 banknote handling machines in use in 17 euro area Member States

6. Cash recycling machines vs. ATMs

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Cash recycling machines vs ATMs

■ CRMs ■ ATMs



28,381 CRMs installed

In addition, 256,411
ATMs/cash dispensers in use

=> 10% of all cash dispensers
in the euro area are CRMs,
90% without recycling
function

Source: ECB CIS2 end-2014

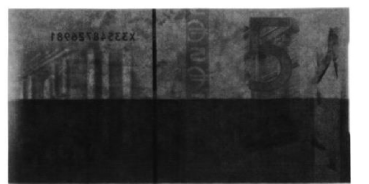
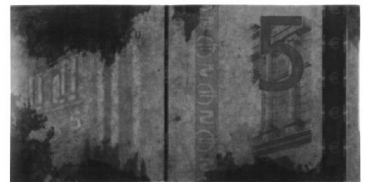
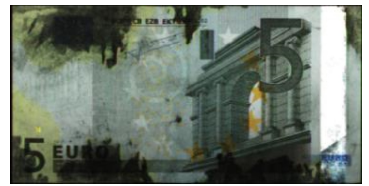
Monitoring and machine testing by NCBs

2014	Onsite inspections			Machines controlled onsite			Machine tests with manufacturers		
	Banks	CITs	others	Staff-operated machines	Customer-operated machines	Devices	Staff-operated machines	Customer-operated machines	Devices
BE	23	2	2	11	16	0	2	14	14
DE	129	0	0	69	119	0	197	43	166
EE	4	2	0	0	0	0	0	0	0
IE	62	19	11	232	37	0	1	0	0
GR	53	0	0	70	59	0	0	4	0
ES	0	4	0	7	0	0	18	3	32
FR	145	77	76	401	117	0	54	1	14
IT	8	34	0	1,067	0	0	49	11	50
CY	16	2	0	8	0	20	0	0	0
LV	2	2	0	14	2	0	0	0	0
LU	0	0	0	0	0	0	0	0	0
MT	8	0	5	3	4	18	0	0	0
NL	60	15	6	168	60	0	4	1	48
AT	3	0	3	0	3	0	54	16	58
PT	767	55	7	1,031	224	n/a	2	6	6
SI	0	0	0	11	0	0	0	0	0
SK	2	1	0	4	0	0	0	0	0
FI	0	6	0	6	0	0	1	0	1
Total	1,282	219	110	3,102	641	38	382	99	389

- ➔ High engagement of various NCBs in testing with equipment manufacturers
- ➔ Onsite monitoring control of banknote handling machines increasing
- ➔ Common “best practice” document for monitoring by NCBs being prepared by ECB

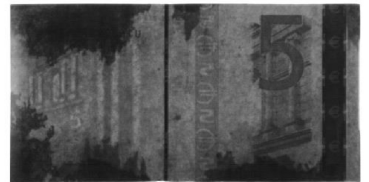
8. IBNS and impact on ECB Decision

- ECB is working on **common detection criteria** (thresholds) for machine detection of IBNS ink-stains
- Implementing rules on the detection and withdrawal of IBNS-stained notes call for standardisation of some technical IBNS features:
 - **Uniform visual appearance (?)**
 - **Uniform machine-readable properties**
- New policy, if adopted, will trigger **amendment of ECB Recirculation Decision** and procedures for automated and manual processing (Annexes II, III)



9. Latest activities regarding IBNS

- Following closure of ECB R&D project works continues on policy and technical aspects
 - Detection criteria – done
- **Software adaptations** being developed for banknote handling machines and NCB sorters
 - 1st BHM passed tests at NBB in June 2015
 - Prototype of software for NCB sorters scheduled for Q3/2015
- ECB is launching **survey on the use** of IBNS by banks, CITs and others
 - *Number/share of entities using IBNS?*
 - *Number/share of ATMs/CRMs protected?*
 - *Share of ATMs/CRMs and banknotes in transit protected?*



Thank you for your attention!



Questions?

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<http://www.new-euro-banknotes.eu/>

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