



EUROPEAN CENTRAL BANK

EUROSYSTEM

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Update on some ECB projects

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Overview

- 1. Outcome of the CIT sector study**
- 2. Update on IBNS project**
- 3. Update on banknote recirculation**

1 Outcome of the CIT sector study

2 Update on IBNS project

3 Update on banknote recirculation

Background

- In view of the increasing significance of the CIT sector in cash transportation and processing, the Eurosystem felt the need to gain a **deeper understanding of the CIT sector**
- To this end the Eurosystem started a **study on the CIT sector** (functioning, main issues/challenges, country differences, potential policy options)
- The study was conducted in **2 phases**:
 - 2013 based on material and data available to the Eurosystem; and
 - 2014 based on **stakeholder interviews (i.e. CITs/CMCs^(*), credit institutions and retailers)**
- An **abridged report** – in order to protect commercial confidentiality – has been prepared to report back to third parties involved

(*) Cash management companies (CMCs)

- The **security situation is very heterogeneous** in the euro area countries. However, generally, it can be said that security has improved for euro area CMC/CIT sector, as criminals may have moved to other (less protected) sectors
- As regards the **legal and insurance requirements** to carry out CMC/CIT activities, significant variations can also be observed
- The **Payment Services Directive (PSD)** plays potentially an increasing role for the CIT sector. In view of the potential proliferation of business models that require a license as Payment Institution, the harmonised application of the PSD should be followed in all Member States

- The **Regulation on the authentication of euro coins and handling of euro coins unfit for circulation** (Regulation (EU) No. 1210/2010) is deemed to be too costly by some interviewees
- The **Regulation on the professional cross-border transport of euro cash by road between euro-area Member States** does not facilitate cross-border transport according to some interviewees
- At the moment, **the Eurosystem perceives no obvious need for further regulation of the CMC/CIT sector at the European level**

Assessment of competition and financial situation

- The national CMC/CIT sectors have very different set-ups among euro area countries
- With some exceptions, it appears from interviews that the CMC/CITs perform satisfactorily in terms of financial soundness, although not uncommonly with relatively **low profit margins** due to **fierce competition**
- There is a **gap between performance and image** of the CMC/CIT sector. It seems that confidence in the sector and the sector's image, often do not match the actual performance of the sector, which is generally deemed to be satisfactory
- In some countries, there is a trend towards duopolies and the risk of monopolies

Assessment of risks and resilience aspects

- General risks of the CMC/CIT sector encompass **security risks, competitive risks, risks of fraud, risks related to the recirculation of cash and to the financial soundness**
- The CMC/CIT sector is felt to be more resilient than initially expected. Nevertheless, some aspects may be considered for improvement
- AML: the level of the CMC/CITs' involvement in the relevant procedural arrangements at the national level is sometimes unclear. CMC/CITs may have a **supporting role** for money laundering controls (or **active role** if they are Payment Services Providers)
- In case something goes wrong (failure, strike), business continuity measures become very important. From the point of view of some stakeholders, it is incumbent on NCBs to encourage or even coordinate the sectors (CMC/CITs, major banks, NCBs) in order to be effectively prepared

Envisaged future developments (1)

- **In the near future** all stakeholders generally expect that the demand for cash will be relatively stable. However, should other means of payments substitute for cash then the **unit cost per banknote processed or transported** is expected to **increase**
- **In the longer term**, banks and retailers seem to expect a decrease of cash usage. Banks aim to reduce their involvement in cash, to reduce their branch network further, develop cashless bank branches and replace cash by other means of payments
- As it is expected that card fees will decrease, this may impact significantly cash usage in the longer term

Envisaged future developments (2)

- **Innovations**/changes such as multifunctional cards, SCOTs^(*) and the development of mobile payments and near-field communication (NFC) are expected by retailers in the longer term to impact cash
- **Recirculation** is expected to progress significantly in the future, not only for CMC/CITs but also for retailers and banks
- The **transport activity** is expected to decrease due to different developments (e.g. reduction of commercial bank branches, the development of local recirculation)
- Potential for **new business solutions** of CMC/CITs

^(*) Self check-out terminals (SCOTs)

Envisaged future developments (3)

- Banks **outsource** more and more to CMC/CITs and/or increase local recirculation by using CRMs(*). **Increasing demand from retailers for integrated services/packages**
- CITs tend to become **integrated companies** and extend their offer with **cash management**, maintenance and technical services
- The on-going trend towards concentration and duopolies (and in some cases national and/or regional monopolies) may also entail some **risks for resilience of the supply chain, for competition and efficiency**
- Finally, the recent change of status of one CMC/CIT in France into a **payment institution** may set up a trend in the CMC/CIT sector as a whole if this new business model proves to be successful

(*) Cash recycling machines (CRMs)

Generally positive and reassuring outcome on the CIT sector, with a few small “improvement” points

- **Risk of monopolies:** Consolidation plans and financial difficulties should be raised well in advance with the authorities and appropriate back up solutions foreseen by your business continuity plans (and shared with banks)
- **Business continuity:** there is a need to make it also your focus and to have joint business continuity plans with other CITs and to discuss business continuity with banks (e.g. to *foresee the situation where a major CIT/competitor exits the market as this has implications for cash supply and security*). Moreover, business continuity plans should be as far as possible realistic and therefore have to be tested
- **Security issues in some countries:** need to cooperate further with the police/increase interactions with the police in cash related security matters

Conclusions and observations (2)

- As CITs tend to develop into CMCs and considering the recent demand for the status of payment institution as well as past cases of large-scale fraud, there is an increasing risk for potential fraud issues. **The fight against internal fraud should therefore be at the centre of the development strategy**
- **Gap between performance and image:** How to solve this issue?
- **Money laundering:** CITs should, also to protect their reputation, aim to comply with AML rules (customer due diligence, refraining from carrying out certain suspicious transactions, recording the relevant information on suspicious transactions and reporting them to the authorities)

1 Outcome of the CIT sector study

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Starting point

- Some euro area Member States require protection of banknotes by IBNS under specific conditions (BE, FR, LU, IE)
- EU legislation supports IBNS:
 - CIT Regulation of 2011: *Encourages the use of IBNS*
 - ECB Opinion (CON/2013/43): *Impact of the limitations on cash payments is out weighed by the enhancing of the public security*
 - ECB Decision 2013/10: *IBNS stained notes found in circulation shall only be exchanged at the request of the owner who is the victim of the criminal activity*



ECB R&D project 2013/2014

- **Objective:** *Definition of common detection criteria for banknote handling machines allowing a reliable recognition and separation of IBNS ink stained notes on cash recycling machines (CRMs)*
- **General approach:** **Infra-Red absorbing security ink**



- Several test decks were produced and tested on various CRMs and NCB high-speed sorting machines (2013, 2014)
- **Results to date:**
 1. Detection of IBNS notes by CRMs is OK
 2. To be improved:
 - “False positive” rate to be lowered (=> required by BEMs!)
 - Test deck requires notes ink-stained with real IR security ink
 - More denominations should be included into the test deck
 3. Detection criteria for BHMs need to be fine-tuned
- Development and testing ongoing at BEMs, review of results by ECB in the second half of 2015

Way Forward (1)

- ECB follows current developments at BEMs and their efforts to develop software adaptations for reliable detection of IBNS ink-stained notes
- ECB closely cooperates with the National Bank of Belgium (NBB) to ensure that NBB's detection criteria for IBNS notes on banknote handling machines, which will be mandatory in Belgium in short, are identical with the envisaged ECB detection criteria

Way Forward (2)

- Next tests for NCB sorting machines are scheduled for Q3 2015. Eurosystem plans to also improve machine detection of IBNS notes on their sorting machines
- Continuation of work on ECB policy framework on IBNS notes. Implementation via amendment of ECB Recirculation Decision planned, with sufficiently long transitional period:
 - IBNS notes to be handed over to NCBs as category 2 note, with information on account holder
 - IBNS notes will remain to be legal tender

Update on ECB work

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1. Banknote Production

- 8 billion new banknotes (2014)
- 9 paper mills, different paper machines
- 16 printing works, 21 production lines

2. NCB sorting

34 billion banknotes processed annually

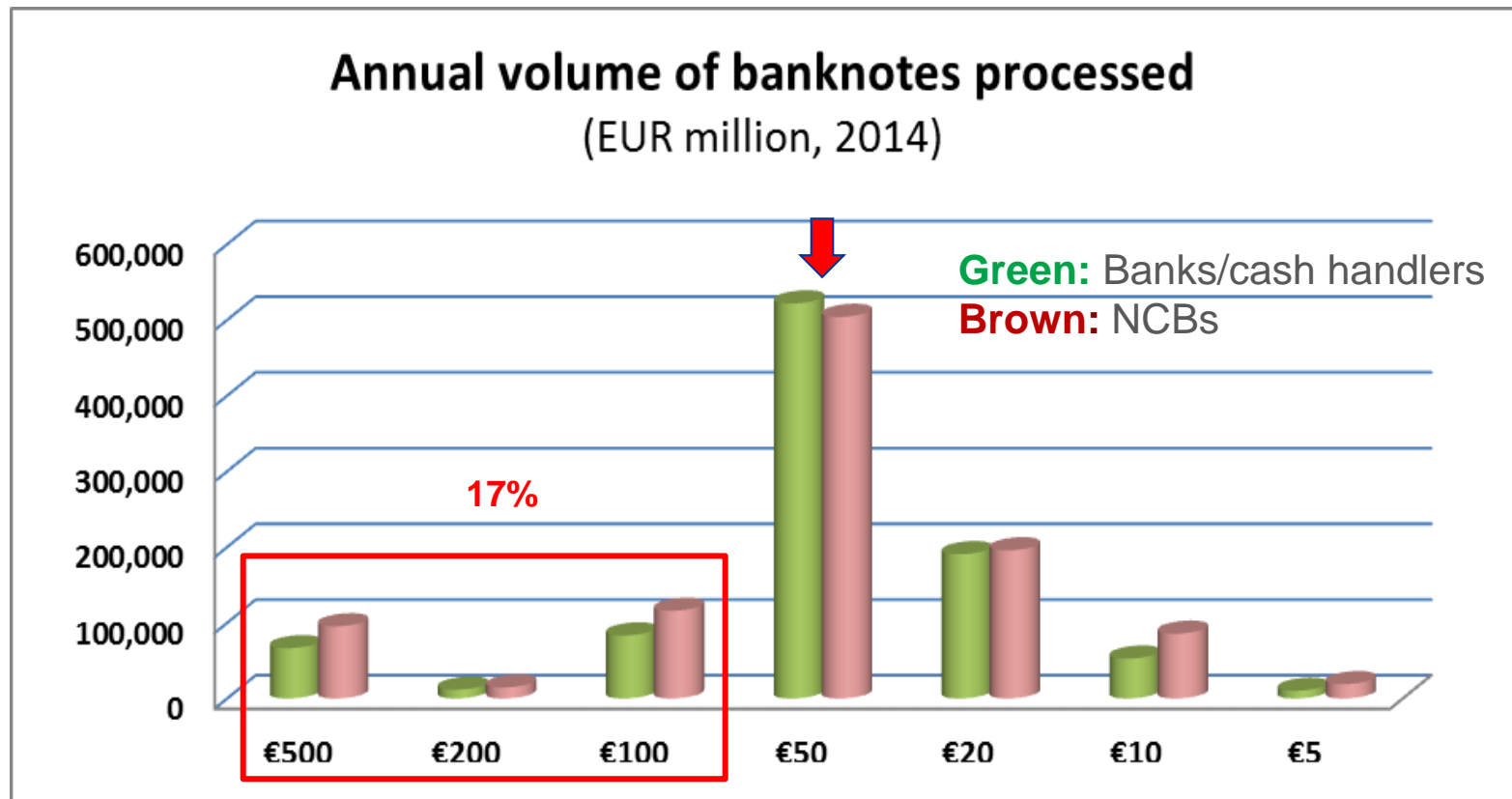
19 NCBs, 531 sorting machines

3 manufacturers, 15 models of machines

3. Cash Handlers

- 28 billion banknotes processed annually
- **100,000 BHM**s in operation
- **50 manufacturers, 380 models of BHM**s

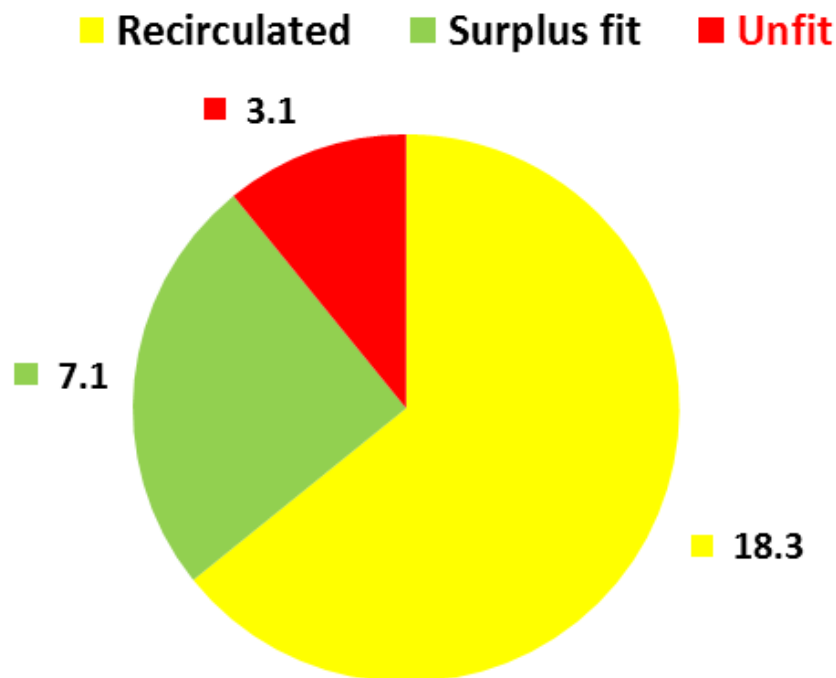
Banknotes processed - NCBs vs. banks/others



- Banks/cash handlers processed **EUR 966 billion**
- NCBs processed **EUR 1,015 billion**

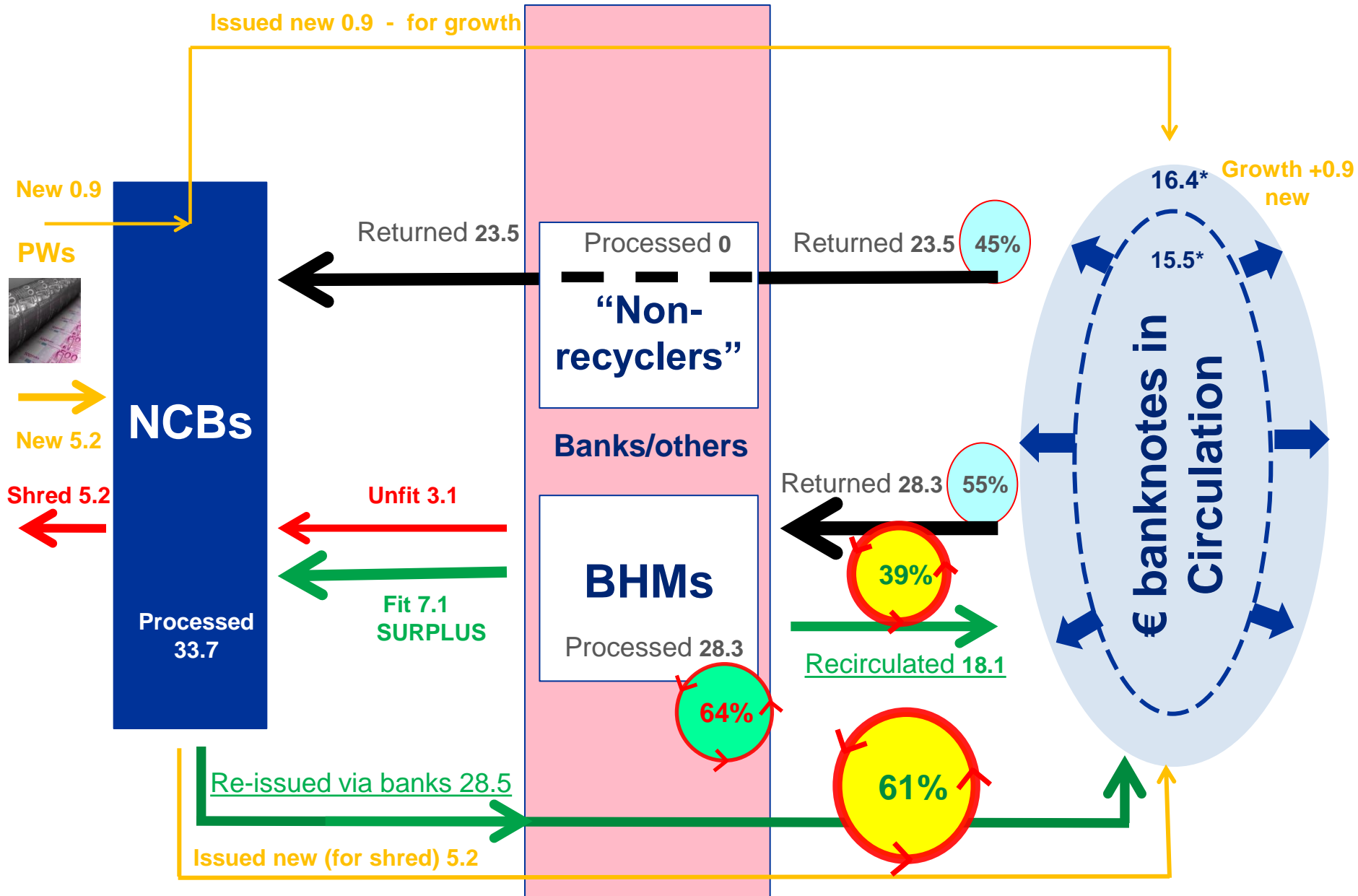
Banknotes processed by banks/others

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



- ➔ **64%** (18.3 bn) of the notes processed on BHM outside NCBs are recirculated
- ➔ **11%** (3.1 bn) of the machine processed notes are unfit and returned to NCB
- ➔ **25%** (7.1 bn) of the machine processed notes are surplus fit and returned to NCB

Overview on euro banknote cycle / without manual checking



Conclusion

- Banks/others have a significant share in the machine processing of banknotes, which is increasing
- Pronounced national differences in banknote recirculation
- Future development of recirculation depends on (i) NCBs' policies and (ii) business decisions of banks/others
- ECB sets the overall policy framework and monitors developments, but is not actively steering banknote recirculation

Thank you for your attention

Please visit us at www.ecb.europa.eu/euro

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

The screenshot shows the ECB website's 'The euro' section. The header includes the ECB logo, navigation links, and a search bar. The main content area is titled 'The euro' and contains several articles and links:

- Cash changerover in Lithuania:** On 1 January 2015 Lithuania became the 19th member of the euro area. The irrevocably fixed exchange rate is €1= LTL 3.45280.
- Questionnaire on euro banknote quality:** Are the banknotes in your pocket in good condition? We'd like to know. Why not complete our online questionnaire. It takes 1-2 minutes and is entirely anonymous. Your opinion counts!
- Growth of the euro area:** 11 countries made up the euro area when the euro was introduced in 1999. There are now 19 members, the latest one being Lithuania.
- Learn, play and win with the euro:** Explore the "Euro School", a new series of educational tools. It is aimed

On the right side, there are additional links and information:

- Euro exchange rates:** Foreign exchange reference rates, Daily nominal effective exchange rate, Conversion rates from former national currencies.
- Statistics:** Euro circulation figures, Production figures.
- Publications:** Information materials on the euro banknotes and coins.
- Common Detector Interface (CDI):** The Eurosystem has developed common standards for facilitating the integration of detectors into banknote sorting machines.
- Banknote security:** Various security features have been incorporated into the euro banknotes. Just feel them, look at them and lift them to check for yourself!

The screenshot shows the 'OUR MONEY' website, which is the official website for the new Euro banknotes. The header includes the 'OUR MONEY' logo and navigation links. The main content area features a large banner for the 'New €20' banknote, with the text 'IN YOUR POCKET AS OF 25 NOVEMBER 2015' and a 'DISCOVER MORE' link. Below the banner, there are several smaller images and text blocks:

- Publications on the new €20 and discover more:** A link to discover more about the new banknote.
- First Series & Euro Series Banknotes:** A row of images showing various Euro banknotes.
- Unveiling of the new €20:** A link to discover more about the unveiling of the new banknote.
- Updating machines for the new €20:** A link to discover more about updating machines for the new banknote.
- Lithuania adopts the Euro:** A link to discover more about Lithuania adopting the Euro.