



The impact of implementing the 2008 SNA on GDP

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Economic Statistics Infrastructure within the SDGs Framework

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Benson Sim
United Nations Statistics Division



Outline of presentation

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- Overview of 2008 SNA changes affecting GDP
- Regional and country experiences



Overview of 2008 SNA changes affecting GDP



Overview of 2008 SNA changes affecting GDP

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Capitalization of research and development (R&D)

Change

- The activity of R&D is no longer treated as ancillary
- Expenditure on R&D is treated as capital formation

Impact

- R&D is re-classified from intermediate consumption to gross fixed capital formation. This changes GDP by the same amount
- Consumption of R&D fixed capital stock is added to non-market output: increase GDP



Overview of 2008 SNA changes affecting GDP

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Output for own final use by households and corporations is valued with a return to capital

Change

- Applies to valuation of market producers only
- Not applicable to non-market producers like government and NPISH

Impact

- Output valued by cost increases by an imputed value of return to capital (Need total stock of assets for the calculation of return to capital)
- GDP increases by the same amount of imputed value



Capitalization of weapons systems

Change

- Expenditure on military weapons systems (vehicles, warships, submarines, military aircraft, tanks, missile carriers, launchers, etc.) is capitalized
- Change in inventories (bullets, bombs, etc.)

Impact

- Reclassification of expenditure on military equipment from final consumption to gross capital formation: This does not change GDP
- Adding consumption of military fixed capital stock to government output: increase GDP



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Method for calculating FISIM refined

Change

Impact

- | | |
|---|---|
| <ul style="list-style-type: none">▪ FISIM applies only to loans and deposits and only when those loans and deposits are provided by or deposited with financial institutions▪ Loans from own funds are also included▪ FISIM to be allocated between all users▪ Implicit service charge of money lenders recognized | <ul style="list-style-type: none">▪ Depending on the structure of financial instruments, output of FISIM could increase▪ For example, loans made from own funds will increase FISIM▪ FISIM allocated to final demand and exports will increase GDP▪ Implicit service charge of money lenders will increase GDP |
|---|---|



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Method for calculating FISIM refined

THE WALL STREET JOURNAL
WSJ.com

ASIA MARKETS | Updated April 22, 2013, 7:58 a.m. ET

Consumer Loans Surge Across Asia

Bankers From Around the World Target Middle Class With Financing for Autos, Home Appliances

By KATHY CHU

HONG KONG—Lenders from around the world are fueling a boom in short-term loans across Asia, helping push debt to record levels as a burgeoning middle class strives for a better lifestyle and banks look to diversify away from the slow-growing West.



As China's middle class grows, so does their debt. Shaun Rein from China Market Research talks about what Chinese consumers are buying with the 320 million credit cards currently in circulation in China.

Companies ranging from Citigroup Inc. to Japan's big banks to a Dutch consumer-finance provider that built its business in Central and Eastern Europe are issuing credit cards or stepping up lending for cars, motorcycles and home appliances from India to Indonesia.

Nonmortgage consumer credit in Asia outside of Japan rose 67% in the past five years to \$1.66 trillion by the end of 2012, according to data provider Euromonitor International. In the U.S. the rise was only 10% during the same period as consumers cut back on debt following the financial crisis.

The lenders are targeting Asia's middle class, which is expected to grow by an average of more than 100 million people each year. They are pitching everything from credit cards to short-term installment loans for motorcycles and appliances. Interest rates can range from 15% for secured auto loans to as much as 40% for unsecured loans, appliances and electronics, driven by high demand for loans and little or no credit history for the borrowers. Loans are typically paid back over six months to five years.

- Rising consumer loans validates 2008 SNA recommendation to remove option not to allocate FISIM to all users



Overview of 2008 SNA changes affecting GDP

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Unfunded pension funds

Change

- There is a cost to administering pension schemes, including non-autonomous and unfunded ones
- Output to be determined using sum of costs and consumed by employees holding the pension entitlements

Impact

- Change household consumption and exports
- Change GDP



Regional and country experiences



Regional and country experiences

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- 75 Member States have switched over to 2008 SNA
- This section presents an overview of the impact for
 - Eurostat members
 - OECD members
 - Australia
 - Indonesia
 - Morocco
 - Singapore



Date of implementation of 2008 SNA

	Date of implementation
Eurostat	17-Oct-14
OECD	Various dates
Australia	08-Dec-09
Indonesia	05-Feb-15
Morocco	11-Jun-15
Singapore	20-May-14



General approach

- Exercise generally comprised
 - Adoption of 2008 SNA recommendations
 - Capitalization of R&D and weapons systems
 - Calculation and allocation of FISIM
 - Calculation of insurance output
 - Etc.
 - Adoption of new classification standards
 - ISIC Rev. 4
 - Statistical improvements
 - New or improved data sources
 - More recent census and survey data
 - Update of base or reference year



Eurostat members – impact on nominal GDP

Total impact on EU GDP level – 2010

3.67%

Methodological
changes (ESA2010)

2.27%

+

Statistical
improvements

1.40%



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Eurostat members – impact on nominal GDP

	Methodological changes (ESA2010)	Impact on EU GDP 2010
1	Research and development	1.86%
2	Expenditure on weapon systems	0.17%
3	Inexpensive tools for common operations	0.07%
4	Government, public/private sector delineation	0.06%
5	Employers' pension schemes	0.06%
6	Other methodological changes	0.05%
T	Total	2.27%

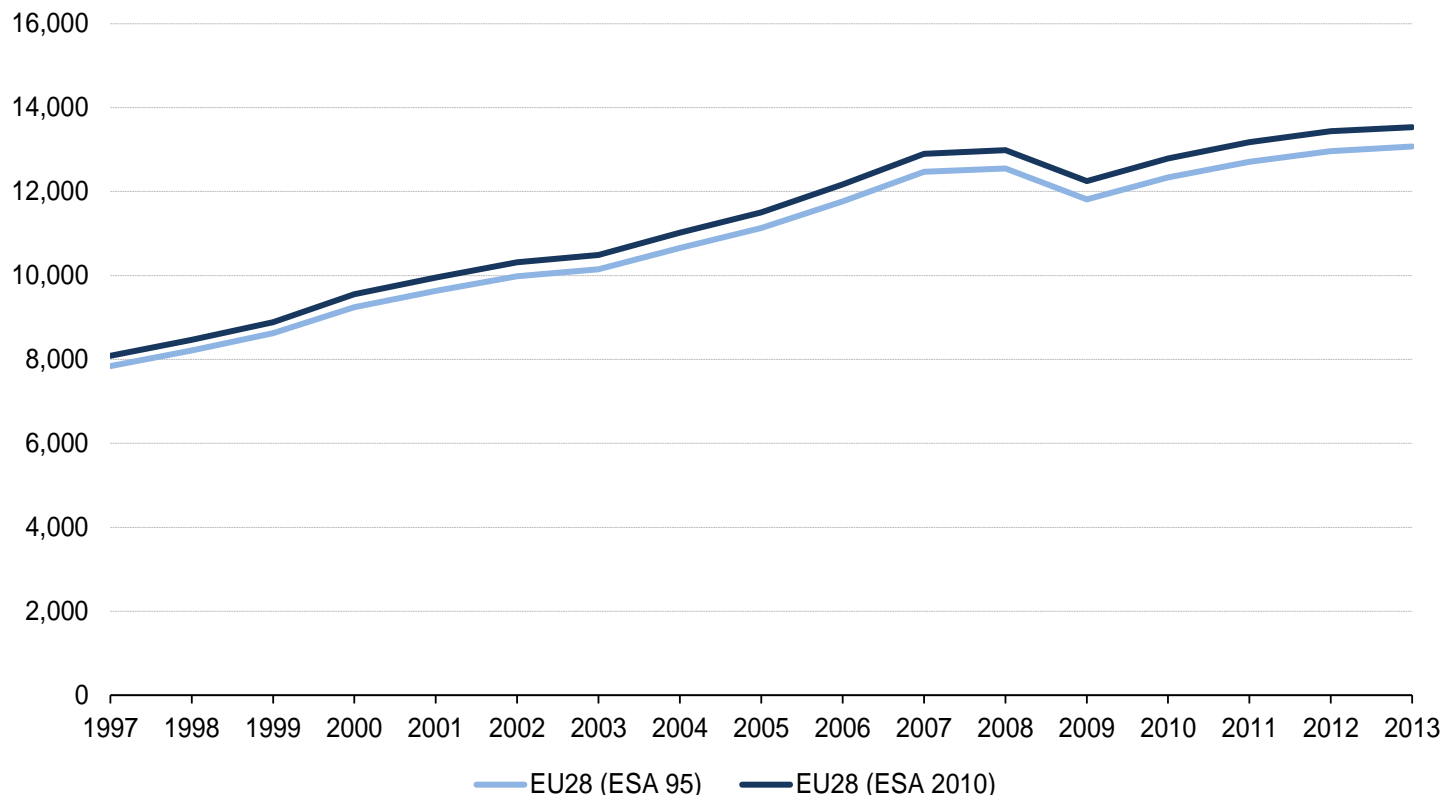


Eurostat members – impact on nominal GDP

	Statistical improvements	Impact on EU GDP 2010
1	New or improved data sources	0.45%
2	Exhaustiveness and improvements related to GNI reservations: illegal activities	0.38%
3	Exhaustiveness and improvements related to GNI reservations: other	0.37%
4	Other statistical changes	0.20%
T	Total	1.40%



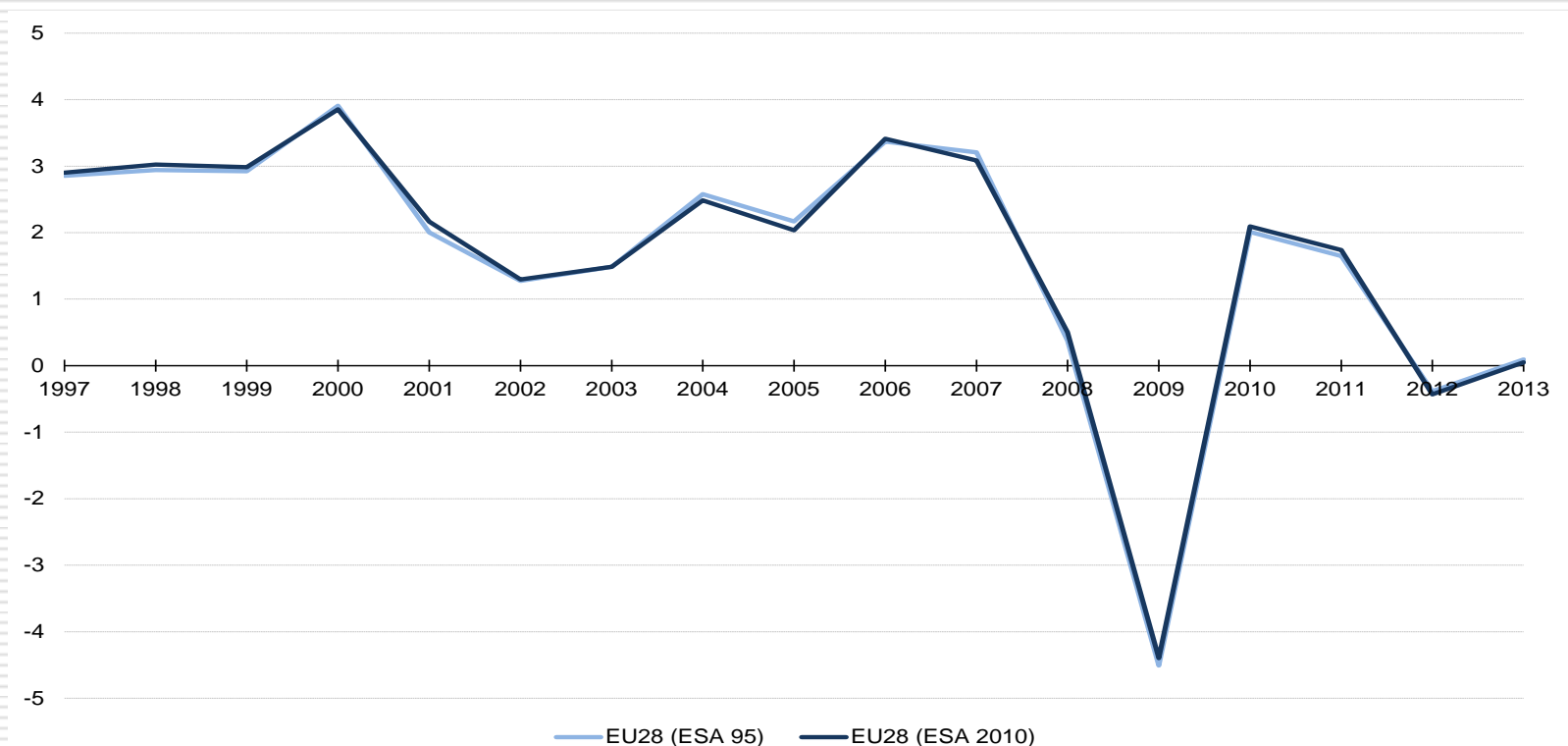
Eurostat members – impact nominal GDP (€ billions)



- Average annual difference in nominal GDP between 1997 and 2013 = 3.7%



Eurostat members – impact on real GDP growth (% change)



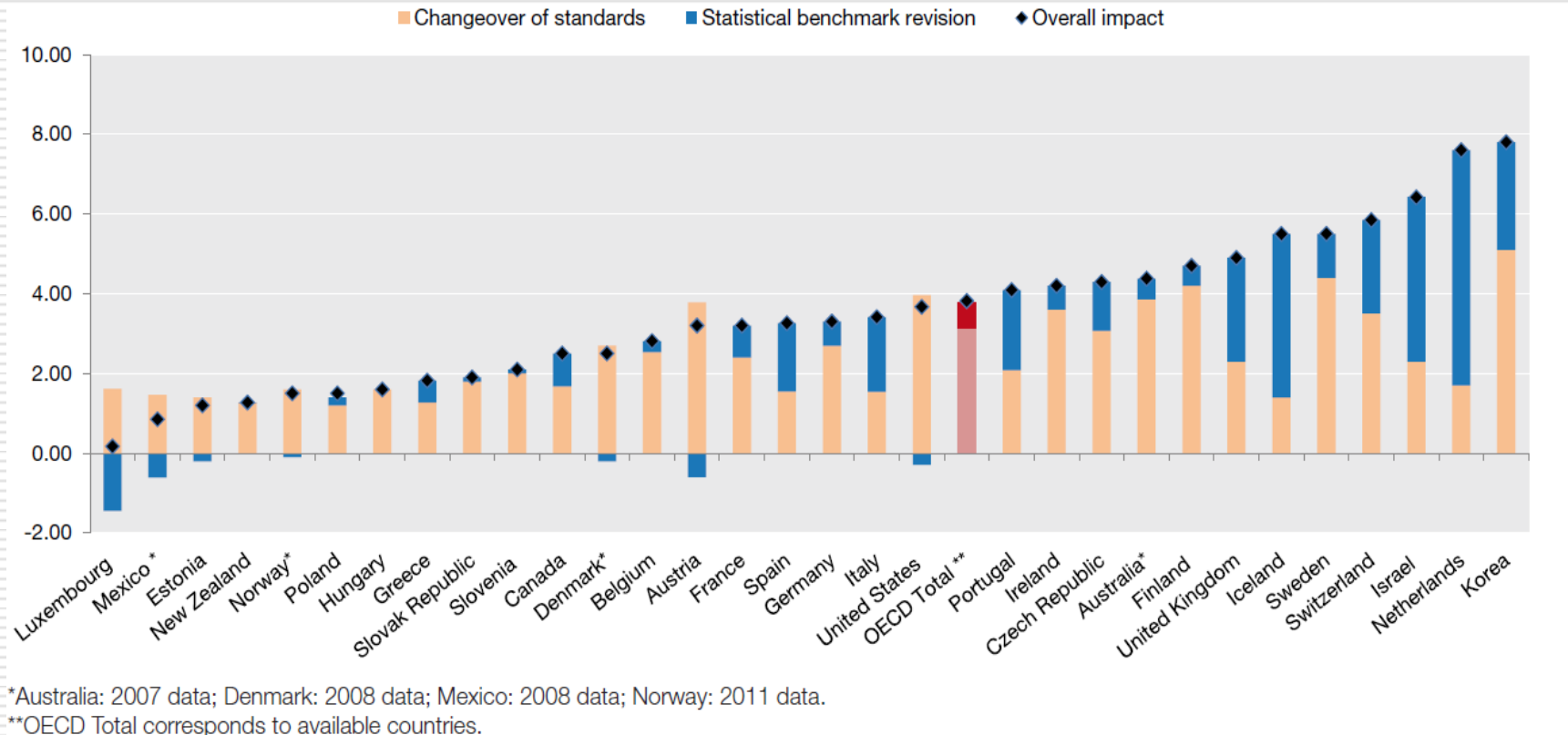
- Change in annual GDP growth rates over the years 1997-2013 was around +/-0.1 percentage points



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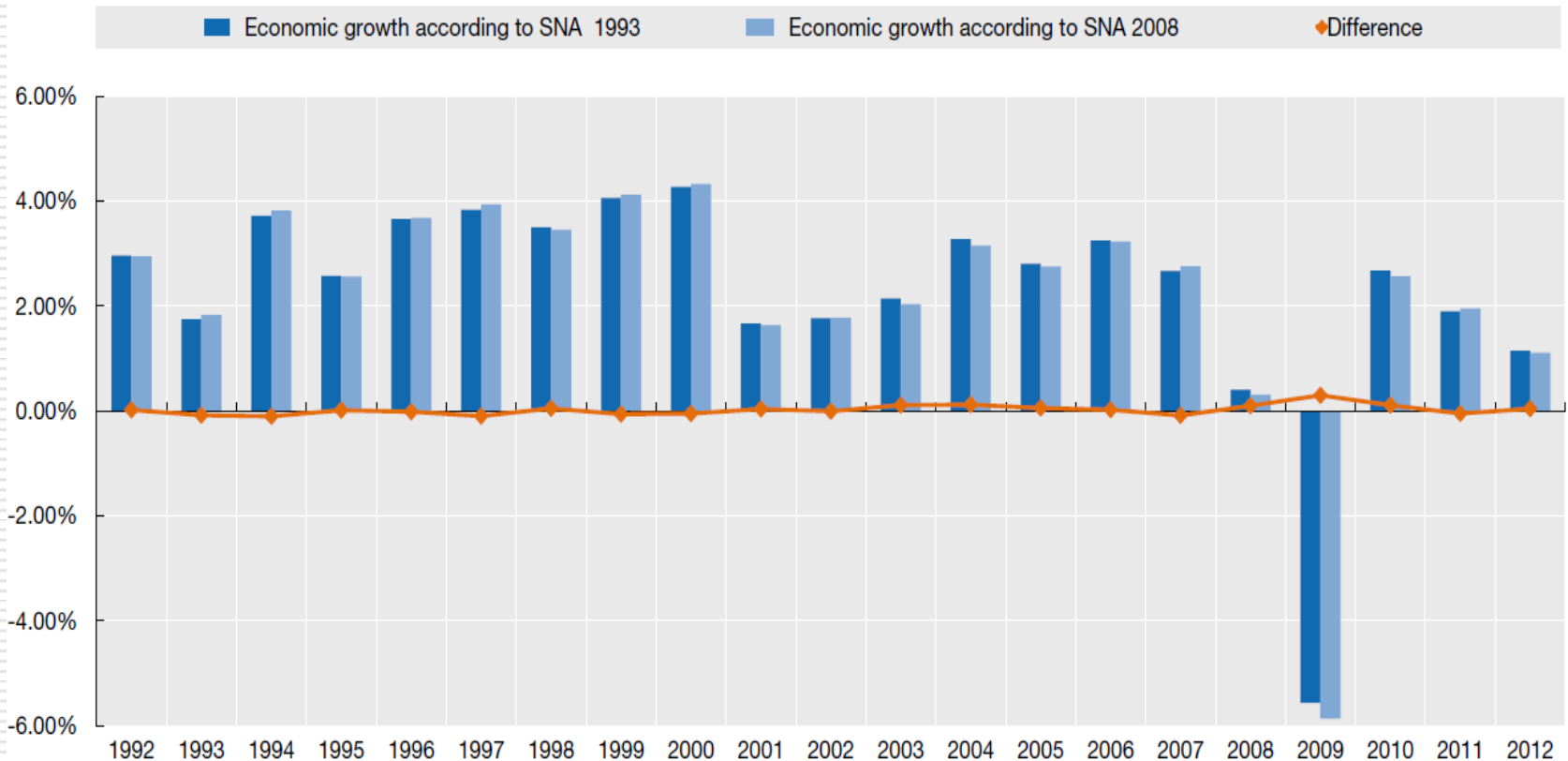
OECD members – impact on nominal GDP in 2010



- Average impact of 2008 SNA is to 3.1%-points
- Average impact of statistical benchmark revision is 1.7%-points



OECD members – impact on real GDP growth



- Real growth rates are generally affected to a much lesser extent



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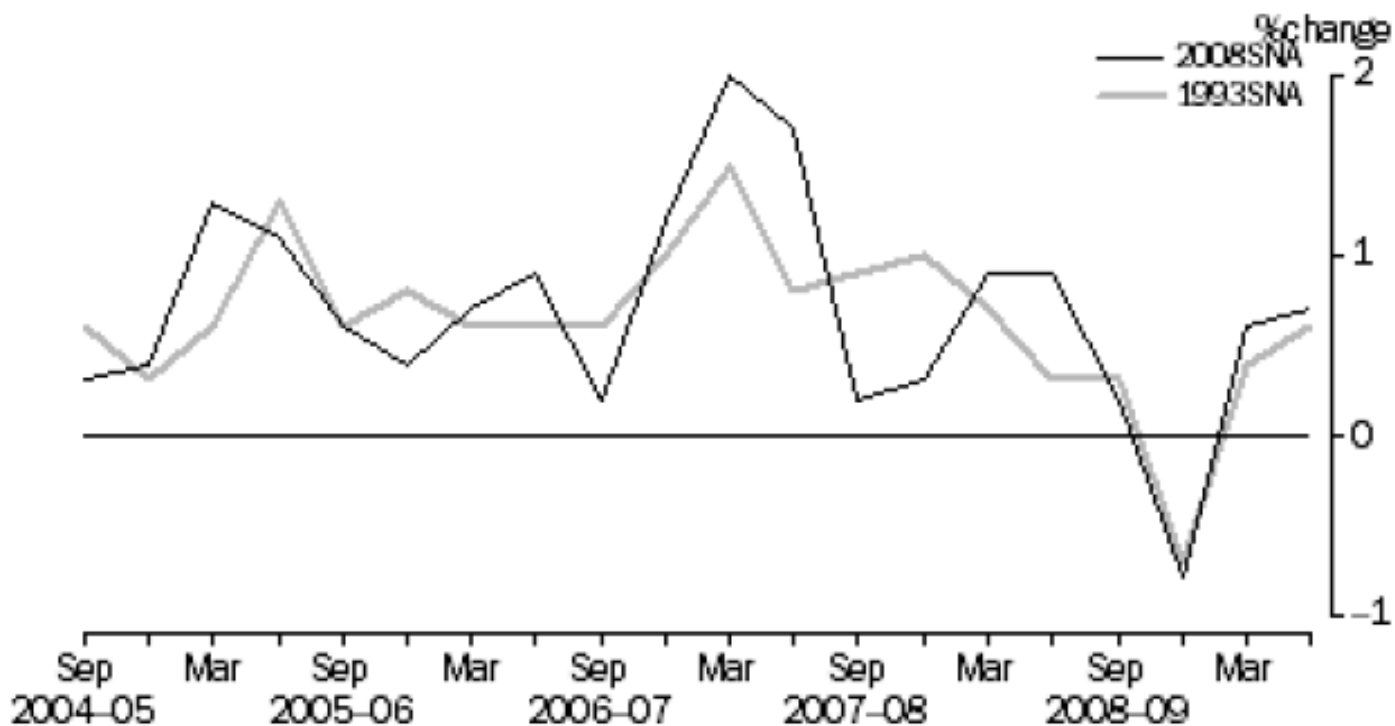
Australia – impact on nominal GDP

Impact of all changes to the level of nominal GDP in 2007-08	4.4%
Of which:	
Due to SNA 2008	1.6%
Made up of:	
R & D capitalization	1.3%
Weapons systems capitalization	0.3%
Not related to SNA 2008	2.8%
Made up of:	
Orchard and vineyard capitalization	0.1%
Improvements to data sources and industry components including the finance and insurance industry	Split not available



Australia – impact on real GDP growth

GDP SEASONALLY ADJUSTED SERIES, CVM—% change

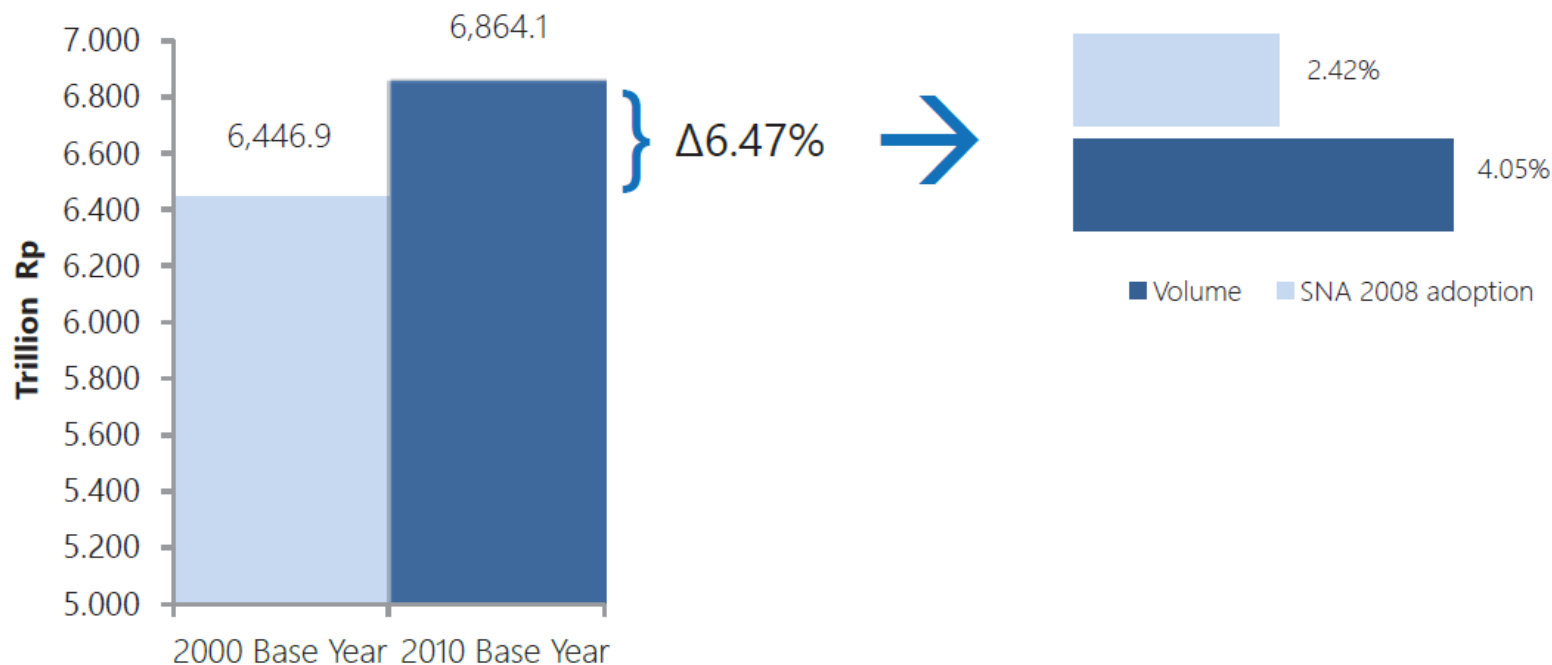




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Indonesia – impact on nominal GDP



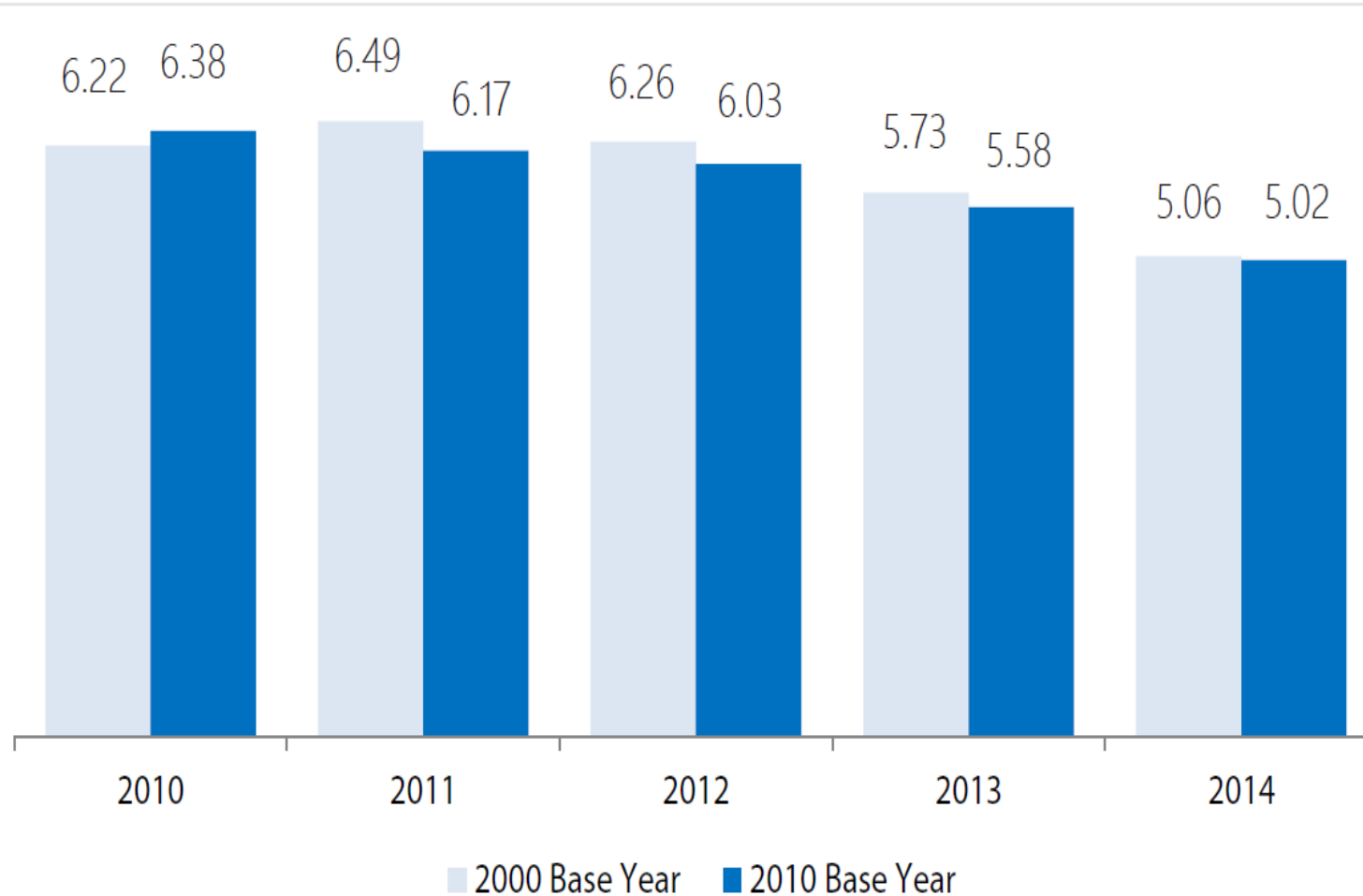
- Nominal GDP in 2010 (2010 base year) increased by 6.47% compared to 2000 GDP series



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Indonesia – impact on real GDP growth





Morocco – Impact on nominal GDP

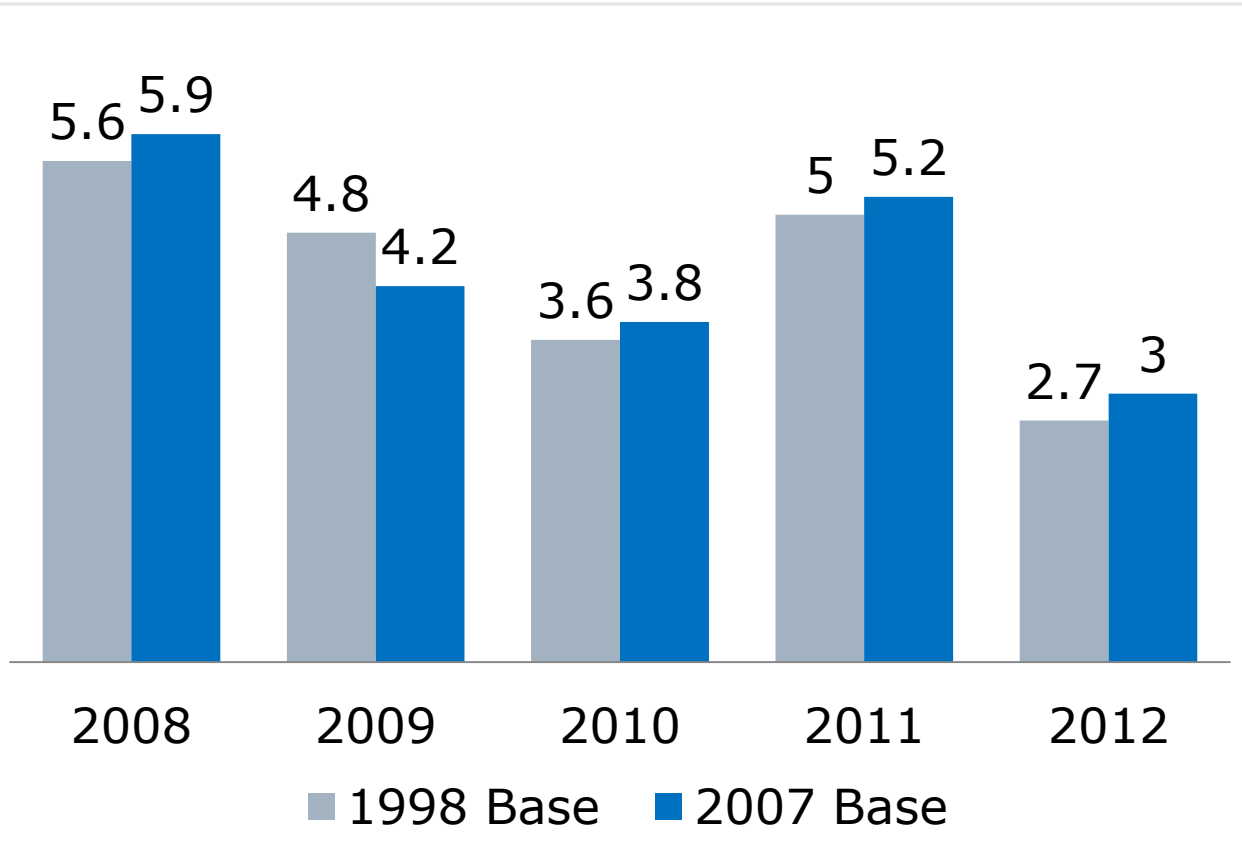
Impact of all changes to the level of nominal GDP in 2007	5.1%
Of which:	
Due to 2008 SNA	2.5%
Made up of:	
Treatment of FISIM	2.0%
R&D spending and capital goods for military use	0.5%
Not related to 2008 SNA	2.6%
Made up of:	
New sources of data and new methods of estimation	2.6%



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Morocco – Impact on real GDP growth





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Singapore – impact on nominal GDP from capitalizing R&D

Year	Revision (%)
2010	2.2
2011	2.1
2012	2.1
2013	2.1



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Singapore – impact on nominal GDP from all changes

Year	Before (S\$Million) (a)	After (S\$Million) (b)	Percentage change [(b)-(a)]/(a)
2010	318096.0	322361.1	1.3
2011	342512.6	344712.4	0.6
2012	355281.2	358542.6	0.9
2013	370064.5	372813.9	0.7



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Singapore – impact on real GDP growth from all changes

Year	Before (%)	After (%)
2010	15.1	15.2
2011	6.0	6.1
2012	1.9	2.5
2013	4.1	3.9



Questions

- Has your country implemented the 2008 SNA?
- If yes
 - When did your country make the changeover?
 - Which 2008 SNA changes were implemented?
 - What other statistical improvements were introduced?
 - How far back did you backcast your GDP data?
 - What was the impact on nominal GDP?
 - What was the impact on real GDP growth?
- If no
 - When does your country intend to implement to the 2008 SNA?
 - What 2008 SNA changes do you intend to implement?
 - What challenges do you foresee when implementing the 2008 SNA?



Email sna@un.org if you have any questions on the 2008 SNA or economic statistics



Thank you