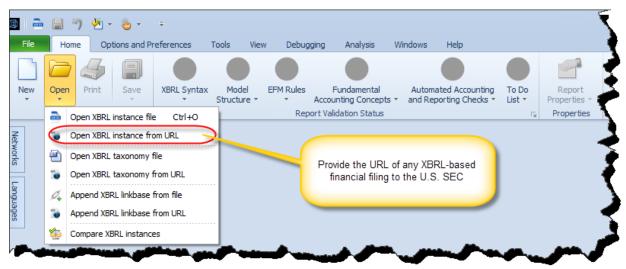
# 1. Validating the Model Structure and Fundamental Accounting Concept Relations

This section walks you through validation of the model structure and fundamental accounting concept relations using the Pesseract digital financial reporting tool in the Viewer/Validation mode. This demonstration uses an XBRL-based public company financial filing which was submitted to the U.S. SEC. Local files and IFRS filings can be validated in the same manner.

# 1.1. STEP 1: Load the XBRL-based public company financial filing

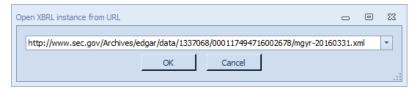
The following process can be used to load any 10-Q or 10-K XBRL-based financial report submitted by a public company to the SEC<sup>1</sup>.

Open the Pesseract application, select "Open", and then "Open XBRL instance from URL".



In the dialog box that appears, enter the URL of the XBRL-based public company financial filing which was submitted to the SEC. For this demonstration, we will be using this XBRL-based financial filing which was made to the U.S. SEC:

http://www.sec.gov/Archives/edgar/data/1337068/000117494716002678/mgyr-20160331.xml



<sup>&</sup>lt;sup>1</sup> XBRL Cloud provides the Edgar Dashboard which is an easy way to search for a financial filing for any public company for any period, <a href="https://edgardashboard.xbrlcloud.com/edgar-dashboard/">https://edgardashboard.xbrlcloud.com/edgar-dashboard/</a>

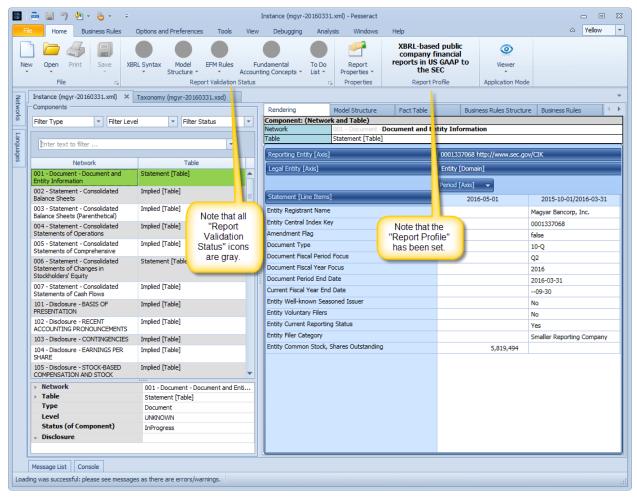
Press the OK button, then the XBRL-based document will be loaded into the application.

**NOTE**: You can open a local version of an XBRL-based financial filing using the "Open XBRL instance file" option.

### 1.2. STEP 2: Run report model structure validation

Notice that the document has been loaded into the application. Notice the following things about the user interface:

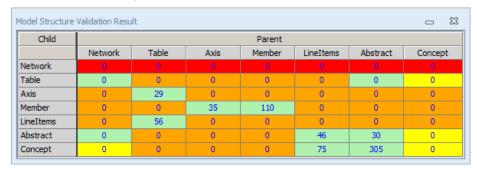
- 1. The "Report Profile" has been detected to be an "XBRL-based public company financial reports in US GAAP to the SEC".
- 2. The "Report Validation Status" icons are all GRAY which indicates that no validation has been performed at this point.



Now, press the "Model Structure" icon from the Report Validation Status group, then select the "Run Validation" option.



Notice that the "Model Structure Validation Results" form is shown which shows an analysis of the relations between the categories of report elements that make up the structure of the report as shown below:



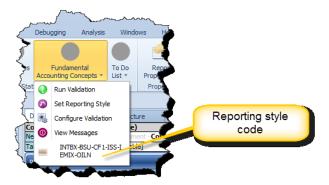
Further, the "Model Structure" Report Validation Status turns GREEN:



You can close the "Model Structure Validation Results" form.

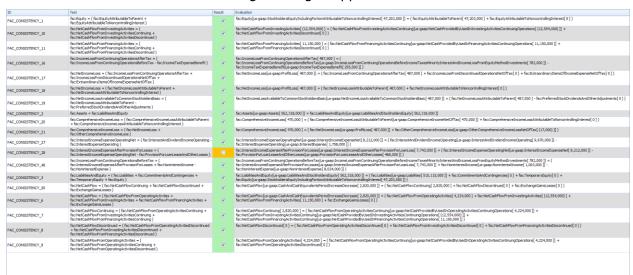
### 1.3. STEP 3: Run the fundamental accounting concept relations validation

Next, we will run the fundamental accounting concept validation (FAC). The first step in this process is to make sure the filing has the correct reporting style code assigned. For this specific filing, the reporting style code should have automatically been set to "INTBX-BSU-CF1-ISS-IEMIX-OILN". Press on the "Fundamental Accounting Concepts" icon to check this:



NOTE: This code should be set. However, if it is not set; go to the "Set Reporting Style" menu item and select that style from the list and set the reporting style code to "INTBX-BSU-CF1-ISS-IEMIX-OILN".

Then select the "Run validation" from the Fundamental Accounting Concepts icon to execute the validation. The following messages appear:



The messages indicate that all the fundamental accounting concept relations are valid which are indicated by the GREEN results but one is inconsistent with expectation. The inconsistent result is indicated by the ORANGE cell in the Result field.

Further, notice that the "Fundamental Accounting Concept" icon turned ORANGE to indicate that an inconsistency has been detected.

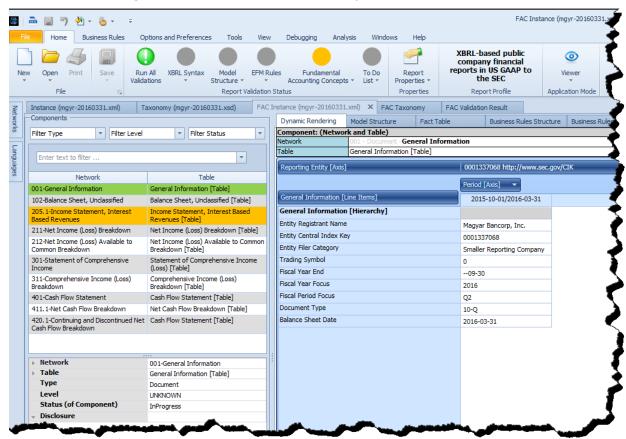


Notice that two THREE additional tabs were added to the application. One is the FAC Validation Result which you were looking at above, another is the FAC Taxonomy

which explains all of the FAC validation rules, and the third is the FAC instance which provides the validation result.



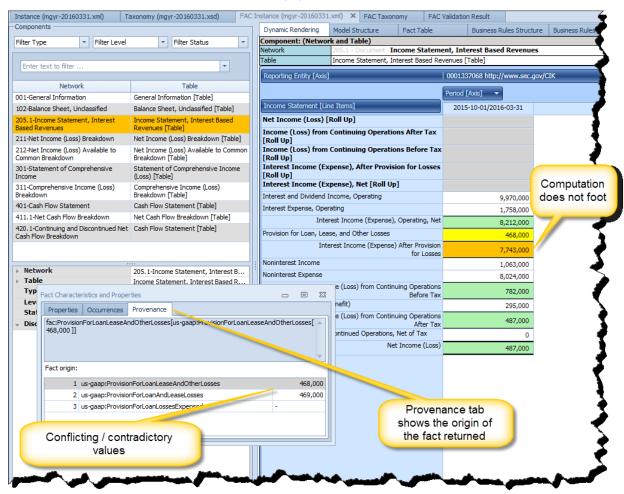
Select the "FAC Instance" tab. Notice the line Network/Table on the left that is ORANGE, indicating the location of the inconsistency:



Click on the ORANGE Network/Table and that report fragment appears in the panel on the right (see the screen shot below). You can see that the fact for the line item "Interest Income (Expense) After Provision for Loan Losses" has an ORANGE highlighting, indicating that there is some sort of inconsistency. If you get out your calculator and compute the value, you notice that the report says the value is 7,743,000 but you will likely compute the value 7,744,000. There is a \$1,000 difference between what was reported and the what the computation shows.

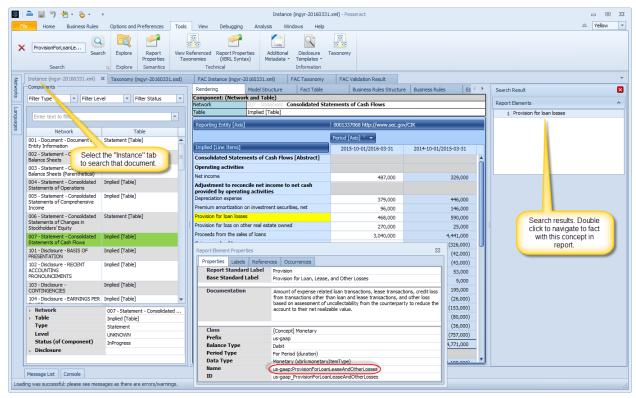
If you click on the reported fact for the line item "Provision for Loan, Lease, and Other Losses", a form will appear. Click on the "Provenance" tab and you will see that two facts were discovered in the XBRL-based financial report.

The fundamental accounting concept relations validation shows that the XBRL-based financial report contains conflicting information. Further investigation of reporting concepts will confirm this inconsistency.

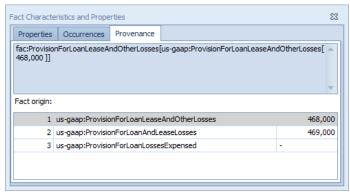


### 1.4. STEP 4: Determine if the inconsistency is an error

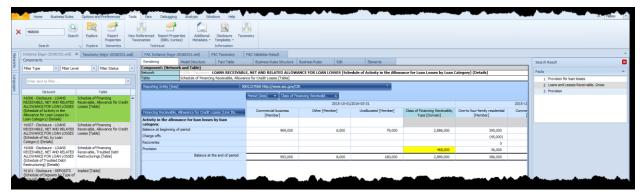
We want to find out where the concept "us-gaap:ProvisionForLoanLeaseAndOtherLosses" is being used. To do this, first, select "Instance" tab to work with that document. Next, select the "Tools" tab from the toolbar ribbon. Enter or copy/paste "ProvisionForLoanLeaseAndOtherLosses" into the "Search" tool. Press the "Search" button and the "Search Result" form appears on the right side of the screen. Click on the line item "Provision for loan losses" and you can see that this is the concept which is being picked up by the validation, that value is \$468,000. If you not click on the "Statement of Operations" Network/Table, you can see that a different concept was used which has a value of \$469,000 on the income statement representation.



This confirms that there is, in fact, a conflict/contradiction in the facts which have been reported.



Further, the roll forward of the provision for loan losses does not correctly foot and it uses the same concept which was reported on the income statement. You can find that disclosure by searching on the value "468000". Clear the search text box by clicking the red "X", the search results show up on the right of the application. The third fact is in the disclosure you are looking for:



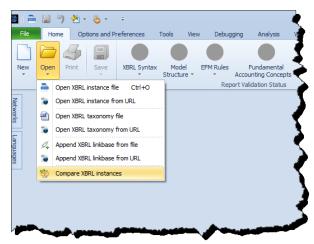
NOTE: You have to reconfigure the disclosure by dragging the "Class of Financing Receivable Type [Axis]" to the columns.

Because this information is contradictory, this inconsistency is confirmed to be an ERROR in the XBRL-based financial filing of this public company.

# 1.5. STEP 5: Confirming the inconsistency by comparing information across periods

To further determine if an inconsistency is an error, one can compare the information reported within one XBRL-based financial report with other reports for the same economic entity and therefore see if the inconsistency is unique to one specific period or whether the same inconsistency **exists for other periods**. To do this you use the comparison functionality of the application.

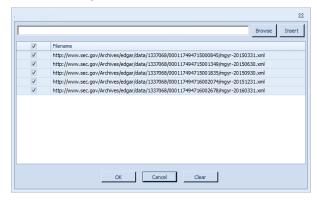
Select "Open" from the Home menu toolbar and then "Compare XBRL instances" from the menu:



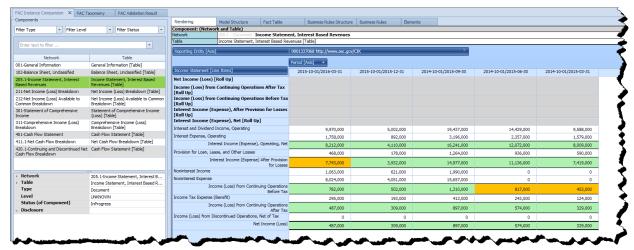
In the comparison dialog you can enter as many XBRL instances as you might want to compare. Add the following XBRL instances using that comparison dialog:

- http://www.sec.gov/Archives/edgar/data/1337068/000117494716002678/mgyr-20160331.xml
- http://www.sec.gov/Archives/edgar/data/1337068/000117494716002074/mgyr-20151231.xml
- http://www.sec.gov/Archives/edgar/data/1337068/000117494715001835/mgyr-20150930.xml
- http://www.sec.gov/Archives/edgar/data/1337068/000117494715001349/mgyr-20150630.xml
- http://www.sec.gov/Archives/edgar/data/1337068/000117494715000845/mgyr-20150331.xml

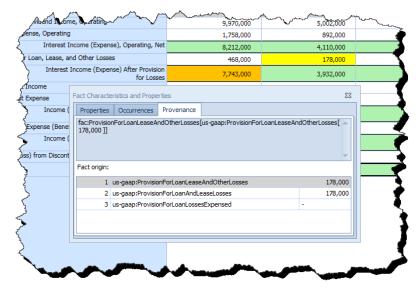
After copying and pasting these XBRL instances the comparison dialog will look like the following screen shot below.



Press the OK button and the documents will load. Select the network "205.1-Income Statement, Interest Based Revenues" and you will see a five year comparison shown side-by-side which you can use to further investigate inconsistencies:



If you click on the line item "Provision for Loan, Lease, and Other Losses" for the periods that show no inconsistencies, you can see that the value for the two concepts reported always have the same value.



### 1.6. STEP 6: Confirming the inconsistency by comparing information across entities

Similar to how you compared information across periods in STEP 5, you can also compare information across reporting entities. Again, to do this you use the comparison functionality of the application.

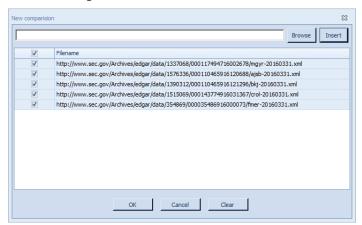
Select "Open" from the Home menu toolbar and then "Compare XBRL instances" from the menu:



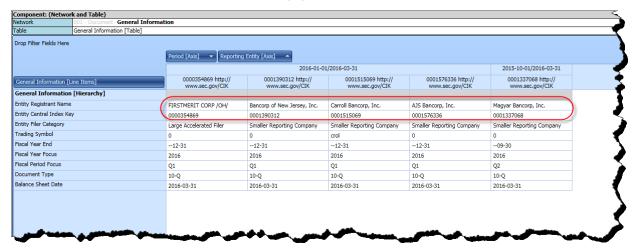
In the comparison dialog you can enter as many XBRL instances as you might want to compare. Add the following XBRL instances using that comparison dialog:

- http://www.sec.gov/Archives/edgar/data/1337068/000117494716002678/mgyr-20160331.xml
- http://www.sec.gov/Archives/edgar/data/1576336/000110465916120688/ajsb-20160331.xml
- http://www.sec.gov/Archives/edgar/data/1390312/000110465916121296/bkj-20160331.xml
- http://www.sec.gov/Archives/edgar/data/1515069/000143774916031367/crol-20160331.xml
- http://www.sec.gov/Archives/edgar/data/354869/000035486916000073/fmer-20160331.xml

After copying and pasting these XBRL instances the comparison dialog will look like the following screen shot below.



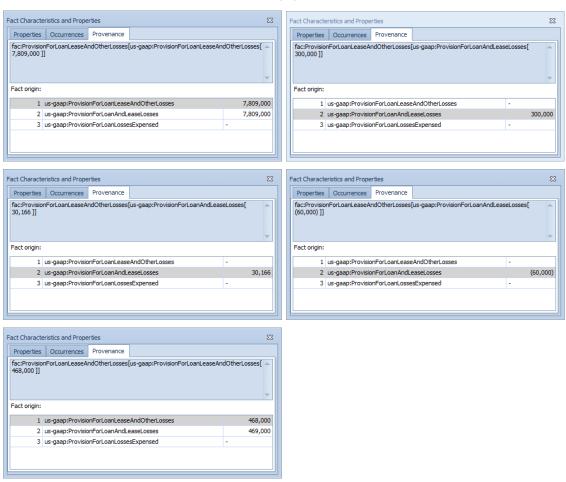
First, note that five different entities are loaded:



Second, notice that of the five economic entities, only one has an inconsistency:

Component: (Net Network		ent, Interest Based Revenues										
Table	Income Statement, Interest Based Re											
Drop Filter Fields H	loro											
orop riitei rieius n	icie											
		Period [Axis] Reporting E	ntity [Axis]									
		2016-01-01/2016-03-31 2015-10-01/2016-03-31										
Income Statement	t [Line Items]	0000354869 http://	0001390312 http://	0001515069 http://	0001576336 http://	0001337068 http://						
Net Income (Los	ss) [Roll Un]	www.sec.gov/CIK	www.sec.gov/CIK	www.sec.gov/CIK	www.sec.gov/CIK	www.sec.gov/CIK						
-	rom Continuing Operations After Tax											
[Roll Up]												
Income (Loss) fr [Roll Up]	rom Continuing Operations Before Tax											
Interest Income [Roll Up]	(Expense), After Provision for Losses											
Interest Income	(Expense), Net [Roll Up]											
Interest and Divide	end Income, Operating	200,688,000	8,062,000	1,469,995	1,296,000	9,970,000						
Interest Expense,	Operating	15,532,000	1,836,000	226,178	159,000	1,758,000						
	Interest Income (Expense), Operating, Net	185,156,000	6,226,000	1,243,817	1,137,000	8,212,000						
Provision for Loan,	Lease, and Other Losses	7,809,000	300,000	30,166	(60,000)	468,000						
	Interest Income (Expense) After Provision for Losses	177,347,000	5,926,000	1,213,651	1,197,000	7,743,000						
Noninterest Incom	e	67,394,000	84,000	80,040	177,000	1,063,000						
Noninterest Expens		166,963,000	3,991,000	1,194,263	1,140,000	8,024,000						
	Income (Loss) from Continuing Operations Before Tax		2,019,000	99,428	234,000	782,000						
Income Tax Expen		23,642,000	727,000	29,584	62,000	295,000						
	Income (Loss) from Continuing Operations After Tax		1,292,000	69,844	172,000	487,000						
Income (Loss) from	m Discontinued Operations, Net of Tax	0	0	0	0	0						
	Net Income (Loss)	54,136,000	1,292,000	69,844	172,000	487,000						

By examining which concepts were used to report the line item by each economic entity you can determine what might be correct and what might be incorrect. In the five different screen shots below for each of the five economic entities; notice that only one economic entity, the one with the inconsistency, reports more than one of the three probable fact values or if they do report more than one then the fact values of the two different facts are the SAME value. This information itself is not an indication as to whether this is an error or not. It is just information. But when you dig deeper and see how the economic entities are using the second concept you can determine if the use of the two concepts is consistent with the rules of logic.



### 1.7. STEP 6: Run the period comparison using SECXBRL.info

You can get a similar set of comparison information using SECXBRL.info using this URL.

#### Period comparison:

 $\frac{\text{http://secxbrl.}28.io/v1/}{\text{fgeries/public/api/spreadsheet-for-report.jq?token=c3049752-4d35-43da-82a2-f89f1b06f7a4&report=IncomeStatementInterestBasedRevenues&cik=0001337068&fiscalYear=2012&fiscalYear=2013&fiscalYear=2014&fiscalYear=2015&fiscalYear=2016&fiscalPeriod=ALL&validate=true&format=html}$ 



#### Entity comparison:

 $\frac{\text{http://secxbrl.}28.io/v1/}{\text{f89f1b06f7a4\&report=IncomeStatementInterestBasedRevenues\&fiscalYear=2015\&fiscalPeriod=FY\&validate=true\&format-} e=true\&format-$ 

 $\frac{indent=yes\&labels=false\&format=html\&cik=0001337068\&cik=0001576336\&cik=0001390312\&cik=0001515069\&cik=0000880641\&cik=0000354869\&cik=0001602658\&cik=0000716605\&cik=0001216752\&cik=0001216752\&cik=0001216752\&cik=0001216752\&cik=0001178409\&cik=0001343034\&cik=0001442741\&cik=0001528610\&cik=0001100542\&cik=0000046195\&cik=0001403475\&cik=0000275119\&cik=0000072971$ 

# Intelligent Digital Financial Reporting – Part 3: Working with Digital Financial Reports – Validating the Model Structure and Fundamental Accounting Concept Relations – Charles Hoffman, CPA and Rene van Egmond

Component: (Network and Table)																				
Network	25.5 -Locano Statement, Indiante Based Previous  (by Jimme 2004 Protection Statement Indiante																			
Table	noome Statement, Interest Based Revenues [Table]																			
Unit [Axis]	USD																			
Fiscal Period Type [Axis]	YTD, instant																			
	Fiscal Year (Axis)																			
	2015																			
	Fiscal Period (Asis) FY Recording Entity (Asis)																			
								EAGLE		Keporun	I Elitify [UVI9]	PENNS	PIONEER			SIMMONS				
	AJS Bancorp.	ALAMOGORDO FINANCIAL	BANK OF HAWAII	BAYLAKE	Bancorp of New	Bank of Marin	Carroll Bancoro.	FINANCIAL SERVICES	FIRSTMERIT	Investor Holding	Magyar Bancoro.	WOODS BANCORP	FINANCIAL SERVICES	Polonia Bancoro	S&T BANCORP	FIRST NATIONAL	TIDELANDS	TWO RIVER	WELLS FARGO &	Xenith Bankshares.
	Inc.	CORP	CORP	CORP	Jersey, Inc.	Bancorp	Inc.	INC	CORP /OH/	Corp	Inc.	INC	INC	Inc	INC	CORP	BANCSHARES	BANCORP	COMPANY/MN	Inc.
Income Statement [Line Items] Net Income (Loss) [Roll Up]	(1576336)	(1100542)	(48195)	(275119)	(1390312)	(1403475)	(1515069)	(880641)	(354869)	(1602658)	(1337068)	(716605)	(1216752)	(1528810)	(719220)	(90498)	INC (1178409)	(1343034)	(72971)	(1442741)
Income (Loss) from Continuing Operations After Tax [Roll Up]																				
Income (Loss) from Continuing Operations Before Tax [Roll Up]																				
Interest Income (Expense), After Provision for Losses [Roll Up]																				
Interest Income (Expense), Net [Roll Up]																				
Interest and Dividend Income, Operating	5,241,000	12,223,728	432,110,000	35,275,000	31,526,000	69,438,000	5,241,203	24,493,000	799,517,000	37,340,000	19,437,000	46,124,000	76,627,000	10,212,684	203,548,000	300,948,000	16,971,740	32,103,000	49,277,000,000	36,841,000
Interest Expense, Operating	722,000	1,433,895	38,023,000	2,635,000	8,041,000	2,251,000	677,963	1,347,000	58,222,000	5,882,000	3,196,000	5,219,000	11,386,000	3,152,805	15,997,000	22,353,000	5,049,985	3,863,000	3,976,000,000	6,480,000
Interest Income (Expense), Operating, Net	4,519,000	10,789,831	394,087,000	32,640,000	23,485,000	67,187,000	4,563,240	23,146,000	741,295,000	31,458,000	16,241,000	40,905,000	65,241,000	7,059,859	187,551,000	278,595,000	11,921,754	28,240,000	45,301,000,000	30,361,000
Provision for Loan, Lease, and Other Losses	80,000	694,000	1,000,000	200,000	924,000	500,000	163,635	-227,000	45,100,000	1,885,000	1,264,000	2,300,000	25,185,000	73,150	10,388,000	9,022,000	1,175,000	490,000	2,442,000,000	2,599,000
Interest Income (Expense) After Provision for Losses	4,439,000	10,095,831	393,087,000	32,440,000	22,561,000	66,687,000	4,399,605	23,373,000	696,195,000	29,593,000	14,977,000	38,605,000	40,056,000	6,986,709	177,163,000	269,573,000	10,748,754	27,750,000	42,859,000,000	27,762,000
Noninterest Income	718,000	4,902,912	186,219,000	9,696,000	309,000	9,193,000	197,584	8,438,000	268,998,000	8,344,000	1,990,000	12,765,000	298,000	4,130,235	51,033,000	95,828,000	1,378,363	3,537,000	40,758,000,000	1,389,000
Noninterest Expense	5,138,000	14,658,129	348,104,000		15,527,000	46,949,000	4,168,550	22,481,000	638,690,000	27,353,000	15,657,000	33,736,000	31,163,000	11,184,708	138,717,000	258,135,000	13,934,872	21,355,000	49,974,000,000	23,514,000
Income (Loss) from Continuing Operations Before Tax	19,000	340,614	231,202,000	11,726,000	7,343,000	28,931,000	428,639	9,330,000	328,503,000	10,584,000	1,310,000	17,634,000	9.191,000	-87,784	91,479,000	107,264,000	o -1,809,755 e	9,932,000	33,641,000,000	5,637,000
Income Tax Expense (Benefit)	-67,000	20,000	70,498,000	3,709,000	2,535,000	10,490,000	157,437	2,433,000	97,019,000	3,511,000	413,000	3,736,000	3,702,000	70,459	24,398,000	32,900,000	0	3,585,000	10,365,000,000	1,454,000
Income (Loss) from Continuing Operations After Tax	88,000	320,614	160,704,000	8,017,000	4,808,000	18,441,000	271,202	6,897,000	229,484,000	7,073,000	897,000	13,898,000	5,489,000	-138,223	67,081,000	74,364,000	-1,809,755	6,347,000	23,276,000,000	4,183,000
Income (Loss) from Discontinued Operations, Net of Tax	0	0	0	0	0	D	0	0	D	0	0	0	D	0	0	0	0	0	0	0
Extraordinary Items of Income (Expense), Net of Tax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Income (Loss)	88,000 (	320,614	160,704,000	8,017,000	4,808,000	18,441,000	271,202	6,897,000	229,484,000	7,073,000	897,000	13,898,000	5,489,000	-138,223	67,081,000	74,364,000	-1,809,755	6,347,000	23,276,000,000	4,183,000