

Arabic Reports: Extraction and Analysis

Prepared by:

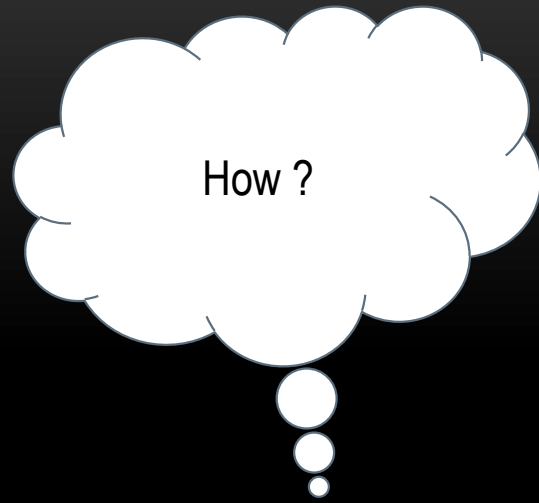
Raya Mahamdeh &

Nour Abu Hijleh

OVERVIEW:

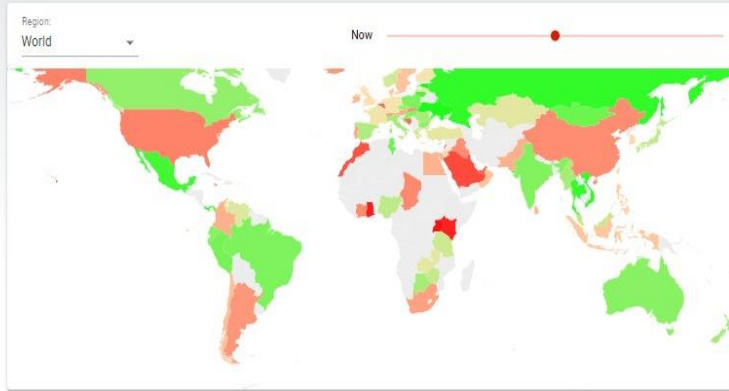
- ❖ Introduction.
 - ❖ Literature Review.
 - ❖ Methodology {Tools , Limitations and Solutions}.
 - ❖ Conclusion and future work.
-

INTRODUCTION

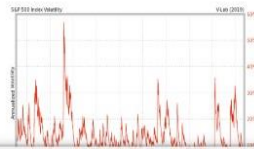


LITERATURE REVIEW

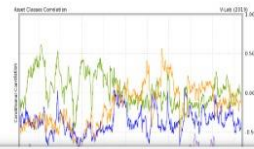
Global Volatility



Volatility Analysis



Correlation Analysis



Systemic Risk Analysis (Dynamic MES) of U.S. Financials

WHAT'S ON THIS PAGE?

Predicted System Capital Shortfall for a market decline: \$256,775.96 million

[Systemic Risk Analysis Welcome Page](#)

Last update: Friday, May 17th, 2019

SRISK Graph

Systemic Risk Rankings for

View changes

Institution	SRISK %	SRISK (\$ m)	LRMES	Beta	Cor	Vol	Lvg
Citigroup Inc	26.12	67059.1	48.87	1.31	0.72	23.89	12.22
Prudential Financial Inc	10.70	27485.9	43.95	1.13	0.65	22.56	15.76
Goldman Sachs Group Inc/The	10.65	27355.4	42.17	1.07	0.60	23.30	12.28
Morgan Stanley	9.67	24821.8	46.03	1.21	0.69	22.78	11.19
Wells Fargo & Co	7.31	18777.4	40.32	1.01	0.63	20.77	8.97
Bank of America Corp	6.17	15851.7	40.89	1.03	0.68	19.70	8.50
MetLife Inc	5.27	13535.4	32.48	0.77	0.49	20.41	12.48
Lincoln National Corp	4.04	10379.5	46.33	1.22	0.71	22.31	16.98

Geographic Area

Region Americas Cap Req

RESET

Country

Separate Accounts

% to include:

RESET

RESET OPTIONS



❖ **Intelligent Text Extraction from PDF Documents**

{ 2005 }

❖ **Layout-aware text extraction from full-text PDF of scientific articles**

{ 2012 }

Web Ontology Language (OWL):

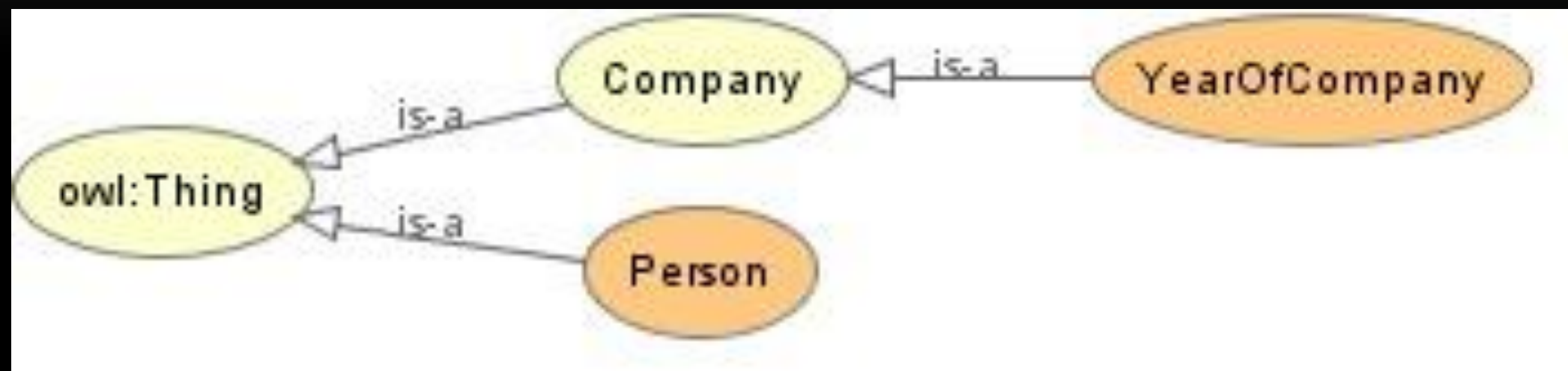
- ❖ APIs

OWL API, Jena API, Protege API

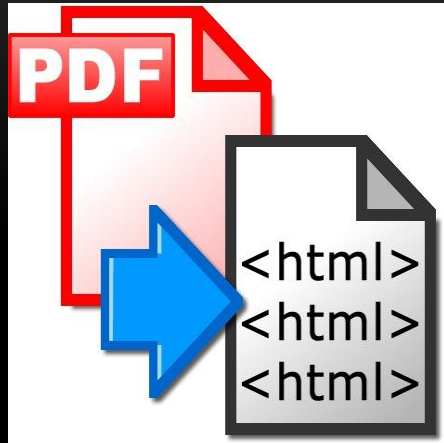
- ❖ Reasoners

Pellet, FaCT++, HermiT

METHODOLOGY
{TOOLS , LIMITATIONS AND
SOLUTIONS}.



CONVERSION



```
ls_013"><span class="cls_013">يف امك كنبلا قرادا سلجم ءاضعا</span></div>  
ls_014"><span class="cls_014">2016 / 12 / 31</span></div>  
ls_015"><span class="cls_015">هيدوبأ زيزعلا دبع /ديسلا</span></div>  
ls_020"><span class="cls_020">نايزاب ظفاح حلص فسوي /ديسلا</span></div>  
ls_016"><span class="cls_016">قرادلا سلجم سينر</span></div>  
ls_017"><span class="cls_017">قرادا ريتسجام</span></div>  
ls_017"><span class="cls_017">•</span></div>  
ls_016"><span class="cls_016">قرادلا سلجم وضع</span></div>  
ls_017"><span class="cls_017">•</span></div>
```

```
<div style="position:absolute;left:0px;top:0px">  
  
<div style="position:absolute;left:212.90px;top:116.20px" class="cls_013"><span class="cls_013">يف امك كنبلا قرادا سلجم ءاضعا</span></div>  
<div style="position:absolute;left:105.90px;top:117.60px" class="cls_014"><span class="cls_014">2016 / 12 / 31</span></div>  
<div style="position:absolute;left:418.98px;top:171.40px" class="cls_015"><span class="cls_015">هيدوبأ زيزعلا دبع /ديسلا</span></div>  
<div style="position:absolute;left:109.91px;top:187.65px" class="cls_020"><span class="cls_020">نايزاب ظفاح حلص فسوي /ديسلا</span></div>  
<div style="position:absolute;left:445.05px;top:186.60px" class="cls_016"><span class="cls_016">قرادلا سلجم سينر</span></div>  
<div style="position:absolute;left:451.56px;top:201.76px" class="cls_017"><span class="cls_017">قرادا ريتسجام</span></div>  
<div style="position:absolute;left:530.16px;top:201.76px" class="cls_017"><span class="cls_017">•</span></div>  
<div style="position:absolute;left:175.55px;top:203.02px" class="cls_016"><span class="cls_016">قرادلا سلجم وضع</span></div>  
<div style="position:absolute;left:362.79px;top:215.33px" class="cls_017"><span class="cls_017">صربقو ندنل يف ءفيرصم بصانم ءدع لغش</span> •</span></div>  
<div style="position:absolute;left:197.68px;top:218.37px" class="cls_018"><span class="cls_018">ءيلام سوپرولاكب</span></div>  
<div style="position:absolute;left:263.62px;top:218.37px" class="cls_018"><span class="cls_018">•</span></div>  
<div style="position:absolute;left:168.47px;top:231.94px" class="cls_018"><span class="cls_018">يف كيرش لمع pwc بيده</span> •</span></div>  
<div style="position:absolute;left:379.38px;top:228.90px" class="cls_017"><span class="cls_017">ندنل - ءيناطير بلا فراضلا ءيعمج وضع</span></div>  
<div style="position:absolute;left:530.17px;top:228.90px" class="cls_017"><span class="cls_017">•</span></div>  
<div style="position:absolute;left:138.91px;top:245.51px" class="cls_018"><span class="cls_018">بيده غنوبو تنسرا يف كيرش لمع</span> •</span></div>  
<div style="position:absolute;left:417.02px;top:243.90px" class="cls_017"><span class="cls_017">1994 ماع كنبلا بسسوم دحا</span></div>  
<div style="position:absolute;left:530.17px;top:243.90px" class="cls_017"><span class="cls_017">•</span></div>  
<div style="position:absolute;left:117.22px;top:259.08px" class="cls_018"><span class="cls_018">ءكرش يف يذيفنت ريدم لمع VTEL بيده</span> •</span></div>
```

PROBLEMS AND LIMITATIONS

- ❖ In-accuracy
 - ❖ No layout-awareness
 - ❖ Not Structured nor Standard
-

MAKING FORMS !

Main Page
About the Bank
Main Table
Search

Table #1

Revenue

Interest income:

Interest expense:

Net interest income:

Net commissions income:

Net interest and commissions income:

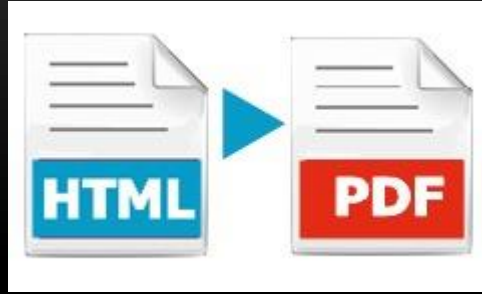
Foreign currency exchange gains:

Direct credit facilities impairment recovery:

The screenshot shows the Firebase console interface. On the left is a dark sidebar with the 'Database' option selected. The main content area shows the 'Database' view for the 'BOP' collection. A table lists the collections: 'Companies' (containing 'People' and 'Users'), 'BOP' (containing 'PIBC' and 'QUDS'), and 'Years'. The 'Years' collection is expanded to show a document with the field 'name' set to 'BANK OF PALESTINE'.

Collection	Document
Companies	PIBC
Companies	QUDS
BOP	PIBC
BOP	QUDS
Years	name: "BANK OF PALESTINE"

CONVERSION



OWL



- owl:topObjectProperty
 - isConnectedWith**
 - HasAsMember
 - IsMemberOf
 - isRepresentativeOf
 - RepresentedBy

Characteristics: isConnectedWith

- Functional
- Inverse functional
- Transitive
- Symmetric
- Asymmetric
- Reflexive
- Irreflexive

Description: isConnectedWith

Equivalent To +

SubProperty Of +

Inverse Of +

Domains (intersection) +

- YearOfCompany

Ranges (intersection) +

- IsMemberOf some Person
- RepresentedBy some Person

Disjoint With +

SuperProperty Of (Chain) +

- HasAsMember o isRepresentativeOf SubPropertyOf: isConnectedWith
- RepresentedBy o IsMemberOf SubPropertyOf: isConnectedWith
- HasAsMember o IsMemberOf SubPropertyOf: isConnectedWith

CONCLUSION & FUTURE WORK:

Conclusion:

- ❖ Better Arabic Content!
- ❖ Provided a template.
- ❖ OWL

Future work :

- ❖ More companies , more languages, more countries.
 - ❖ Creating a higher application:
 - liquidity analysis
 - prediction and risk analysis
 - correlation, volatility
-