

TURKISH CATASTROPHE INSURANCE POOL (TCIP) ACTIVITY REPORT



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## 10 AUDITOR'S REPORT

## CHAIRMAN'S MESSAGE



Dear Stakeholders,

We have completed a year during which we, with the same passion and determination, have maintained our activities to raise public awareness for earthquake and increase the insurance coverage rate. TCIP on its 16th year increase the number of houses provided with earthquake coverage up to 7 million 628 thousand. The insurance coverage rate all around Turkey realized as 43%.

One of the most significant developments of the year was of course the commissioning of Disaster Management System (AYS). Standing out as one of the most significant projects unveiled under the roof of TCIP, which will constitute a reference for the world in terms of disaster management, Disaster Management Project has been a top priority throughout the year.

One of the significant developments of AYS has been the Mobile Loss Assessment Application which runs with direct integration with the Loss Software. As part of the Disaster Management System Project, we intend to ensure that the loss assessment will be performed via mobile devices in the upcoming period. In this framework, we will continue our efforts in 2017 too to make sure that Mobile Loss Assessment Application becomes well known and is widely used.

This year, meetings were held with other governmental institutions with which we will be jointly working in the case of a disaster, to arrange cooperation and activities. In this context, we signed a cooperation agreement with the Ministry of Environment and Urbanization, General Directorate of Land and Cadastre for aerial photo taking and data generation in damaged areas after a disaster. On the other hand, the efforts were also commenced towards the loss assessment protocol to be signed with the Ministry of Environment and Urbanization, General Directorate of Construction Works. Starting from the date of its foundation, we have been making great efforts to reinforce TCIP's loss indemnification capacity, and offer coverage diversity and cost advantage. Reinsurance protection of TCIP was renewed as of November 1, 2016 in line with the characteristics of the new portfolio.

The disaster bond which is shown as an example of great success in the world ILS (Insurance-Linked Securities) and which reaches its maturity on April 2016, was issued as the cheapest bond ever issued in terms of cost and additional capacity was provided with Bosphorus Ltd. Cat Bond / Disaster Bond with a validity until 2018.

Depending on the increasing number of policies, TCIP's need for loss indemnification capacity is increasing. We anticipate that this growth trend will be continuing in the future. In this framework, in addition to restructured reinsurance schemes, we are continuing our research activities about benefiting from alternative risk transfer products, particularly the disaster bonds.

Our goal is a powerful TCIP equipped with tecnical infrastructure, information technologies, human resources and financial structure. Now in this journey, we are proud of the fact we have taken significant steps, designed exemplary projects, and created confidence in the world markets with our financial structure.

For the upcoming years, we are planning both to take our current projects a step further and unveil new projects. We are well aware that we should keep moving towards our goal. We are confident that we will secure all houses in our country with Compulsory Earthquake insurance. We also focused on communication activities to support this goal. We identified our public relations and advertising agencies as well as our strategy and road map. In line with these plans, we initiated the efforts for the third Building Design Contest. For another traditional and attractive event 'Cities Do Live Project' (Şehirler Yaşıyor), the content creation has been started in coordination with consultants. While continuing these activities, we started to make the planning for Social Stakeholder Analysis which will be launched in 2017, in order to measure social stakeholders' perception of TCIP and learn their expectations.

At the point where we are today, I want to express my gratefulness for all TCIP personnel dedicated their efforts to our goals, to the institution and to our country, as well as to our stakeholders and all house owners included in Compulsory Earthquake Insurance and who make efforts to raise the awareness of those around.

Sincerely,

## Murat Kayacı

Chairman of the Board

## MESSAGE FROM TECHNICAL OPERATOR EUREKA SIGORTA GENERAL MANAGER



Dear Stakeholders,

We closed the 16th year of TCIP (Turkish catastrophe insurance pool) with 7 million 628 policies and a coverage ratio of 43%. Sticking to our goal to increase the number of dwellings covered by earthquake insurance up to 10 million, we are determinedly working towards this goal.

The year 2016 has been guiet in terms of loss operations. On the other hand it has been guite an active year during which many projects have been accomplished, new projects have been started and communication and awareness raising activities have been accelerated. One of the most significant developments of the year has been the fact we started to use catastrophe Management System which will set a reference for the world in terms of disaster management as of 2016. Today TCIP has the capacity to carry out the claim transactions via AYS (Disaster Management System), which is capable of covering either small or big earthquakes, aligned with the needs of the future in addition to the policy generation services running in integration with various institutions and serving over 7 million insurance buyers, and used by 31 insurance companies and 16000 agencies.

Of course this switchover has not been the end of any process, but a start of it. This year we have continued to work on the development of Disaster Management System. One of the significant developments of the application has been the Mobile Loss Assessment Application which runs with direct integration with the Loss Software. In 2016, thanks to TCIP Web Portal, a transparent platform has been created by which loss files can be quickly opened and loss files can be tracked through the website. In order to efficiently process the loss files and to ensure that the indemnifications are paid to the insured accurately and in the quickest manner, SAP Loss Management System has been commissioned. Online integration with Vakıfbank was established to make sure that the insured can receive their payments quickly and efficiently. Thanks to this system, payments are made directly to Turkish ID Number of the relevant person, with the goal to make sure that the loss indemnification can be collected from any branch of Vakıfbank all around Turkey using the password given in the SMS sent to the beneficiary through the system.

Another important step taken in 2016 has been the completion of the image taking operations of Real Orthophotograph Project conducted under technical coordination of the General Directorate for Geographical Information Systems, the Ministry of Environment and Urbanization. As part of the project, Real Orthophotographs with a scale of 1/1000 have been produced for the areas of settlements all around Turkey (province/districts/villages). The Real Project stands out as a the novelest one in terms of its scope, cost, time and the technology utilized, and it is also among the rare projects around the world.

We have made tremendous efforts in order to undertake similar cooperation with other state instructions, with which we work together in the case of an emergency. As a result; We signed a cooperation agreement with the Ministry of Environment and Urbanization, General Directorate of Land and Cadastre (TKGM) for aerial photo taking and data generation in damaged areas after a disaster. Under the scope of this protocol, TKGM shall, upon request of TCIP, provide the detailed aerial photos and coordinated digital orthophotographs for the damaged areas within 24 fours after the earthquake. TCIP shall use the information and data received from TKGM in loss assessment activities. This key goal of this cooperation is to quicken the process for the life to return to normal after the disaster.

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In 2016, the efforts were also commenced towards the loss assessment protocol to be signed with the Ministry of Environment and Urbanization, General Directorate of Construction Works. This protocol is intended to deploy the technical personnel providing support to AFAD for damage evaluation in a disaster-level earthquake also for the evaluation of the damages under the scope of Compulsory Earthquake Insurance.

In addition to ongoing projects, we unveiled new projects too. TCIP Digital Archive Project is one of these projects which we commenced with a view to create a common and secure institutional memory. Under the scope of this project, around 300.000 loss files stored physically and any loss files which may be kept in the future, official correspondences and documents will have been transferred to digital archive system and a statistical database will have been created for national loss indemnifications.

Another project has been the infrastructure efforts which will ensure the most effective management of postearthquake high requests as may be received from the insured who may need to make use of the Compulsory Earthquake Insurance through Customer Services Line HELLO TCIP 125. In addition to the projects mentioned above, we have achieved improvements to digital infrastructure processes such as database backup, server and disaster recovery. Starting from the very first date of its foundation, while maintaining its operations, while raising insurance awareness and reinforcing the infrastructure. TCIP has maintained its loss indemnification capacity and the establishment of reinsurance program in the light of its important principles. In 2016, the restructured capital markets reinsurance capacity limit has been increased, disaster bond capacity has been maintained under Bosphorus Ltd., and reinsurance support was granted by the state.

Communication stands out as one of the key subject matters for use to raise the awareness on earthquake. 2016 was also a year with changes and renewal in communication activities. First of all, we identified our new Public Relations and Advertising Agencies. Then, we designed a communications strategy, and started to work intensively. We decided to continue the Contest of Building Design with Resistance to Earthquake, and announced this contest. We informed about the contest all relevant clubs of the universities where there is a Construction Faculty. This year's third contest received a total of 85 applications - a record level. 28 teams from the applications qualified for the final. It is also decided to continue an expanded version of our traditional and attractive event 'Cities Do Live Project' (Şehirler Yaşıyor). Our project will be expanded with the development of new training - informative contents, new tools and methods which are preparing intended for different target audience.

In 2016, we also continued the project partnership commenced in 2013 in order to tell TCIP and CEI to the community leaders attending to Red Crescent's Community Leaders Organization trainings and to the target audience of such leaders.

The evaluations for the field of communication revealed the idea that public opinion pool and social analysis activities should be completed. In this context, TCIP made the planning for Social Stakeholder Analysis activities which will be started in 2017 in order to identify the needs of the public for our particular area, receive the opinions, suggestions and expectations of all stakeholders particularly the public institutions and organizations with which we are cooperating, all in line with our top priority of preparedness to earthquake.

The Social Stakeholder Analysis activity is intended to hold thorough meetings with senior managers of the institutions, one-on-one meetings with operation teams and internal meetings for the personnel and carry out large-scale surveys and to identify our stakeholder's expectations, general public needs, priority issues and solution offers for our particular area of activity. We intend to plan our strategy and investments accordingly.

At the end of a successful 2016, I would like to take this opportunity to thank the whole TCIP family, business partners and stakeholders for their superior works and efforts.

Sincerely,

## Can Akın Çağlar

Board Member and General Manager of Technical Operator Eureko Sigorta

# VAN EARTHQUAKES AFTERMATH

With the experiences from Van earthquake in terms of loss management, it has become apparent that a more professional infrastructure is necessary to manage the loss operation of a catastrophic dimension after a large-scale earthquake.

Disaster Management System project was initiated with lessons taken in the aftermath of a large-scale earthquake

# PURPOSE OF PROJECT AYS to establish

to establish a system which allows not only for the management of the worst scenario, but also for the management of daily tasks and activities of the Institution...

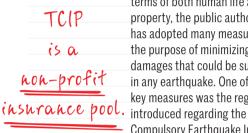
Section 1

# ABOUT TCIP

## **ABOUT TCIP**

## **1.1 FOUNDATION AND PURPOSE OF TCIP**

In the aftermath of Marmara Earthquake that took place on August 17, 1999 and caused great losses in



terms of both human life and property, the public authority has adopted many measures for the purpose of minimizing the damages that could be suffered in any earthquake. One of the key measures was the regulation Compulsory Earthquake Insurance (CEI). Having been established

under the Legislative Decree No.587, and started to offer Compulsory Earthquake Insurance coverage for dwellings as of September 27, 2000, TCIP eventually embraced a much stronger legal framework with the Catastrophe Insurance Law No. 6305 on 18th August 2012.

TCIP is a public legal entity "insurance" pool, and is established in order to provide coverage for Compulsory Earthquake Insurance, Founded in a collaborative effort between public and private sector, TCIP is a non-profit organization, which possesses a unique structure.

TCIP aims to ensure that the lives of citizens safely continue from where they have left off prior to the earthquake as the organization adopts the approach fostering the idea of "Earthquake will be over, life will go on". With CEI, financial assurance is provided to the insured property owners against earthquakes as well as fires, explosions, landslides and tsunami risk that can result from earthquakes. Regardless of whether the property is partially or entirely damaged, the damages suffered by the buildings are indemnified as fast as possible and every effort is used to ensure normal lifestyles are resumed.

While TCIP promotes the widespread use of CEI across the country through the distribution network consisting of insurance companies it works with, agencies reporting to the same and branches of banks, it also aims to facilitate for the people to acquire this assurance by implementing a low premium policy.

## **Compulsory Earthquake Insurance is a social** responsibility for all of us!

TCIP which supports its activities intended for insurance through events aiming to increase the awareness of the public, emphasizes that CEI, before anything else, is a social responsibility of each and all of us.

Considering the fact that almost the entire country could be classified as a seismic zone, it is not surprising that earthquakes have been the most frequently suffered types of catastrophes in our country in the last 60 years. Also earthquakes, due to their nature, are the type of catastrophe affecting not only the area they hit but also the entire country in terms of its economy.

While CEI offers assurance in terms of a person's dwelling, it also attempts to establish a pool of collateral for the country. This pool of financial resources which has gained importance especially in the aftermath of the earthquake, essentially becomes a guarantee on which people in need depend on after being exposed to the devastation that an earthquake may cause anywhere in the country.

TCIP, which provides the opportunity to help the regions affected from earthquakes while giving us the much needed assurance, views the task of instilling the awareness of social solidarity as its main responsibility.

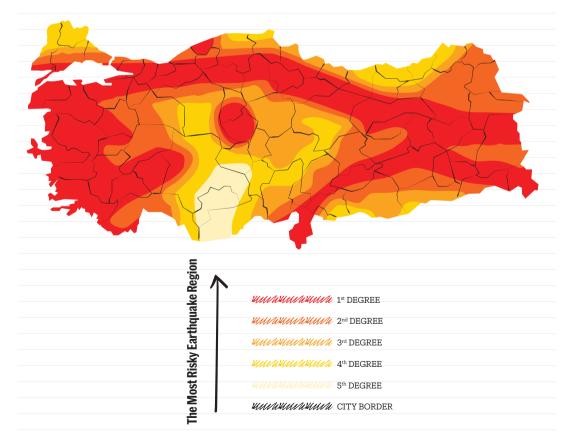
The established system has performed successfully and has become a showcase for many countries as pointed out by international institutions.

The purposes behind the establishment of this system developed as a collaborative effort of the public and private insurance sector in order to meet the requirements in the fastest and most effective manner can be listed as follows:

- To provide assurance against earthquakes for all the dwellings within the scope of the scheme with affordable premiums,
- To ensure that the risk is shared in the country,
- To ensure the distribution of the financial burden that earthquake damages could create through international reinsurance and capital markets via insurance schemes,
- To reduce the financial burden on the government budget resulting from earthquakes, especially the construction of disaster houses after the earthquake,

- » To prevent additional taxes that could be reflected to citizens to cover such financial burden of the government,
- To use the insurance system as an encouraging tool in the creation of sturdy buildings,
- To provide the means for the accumulation of longterm resources to meet earthquake damages, and
- To contribute to the development of insurance and social solidarity awareness in the community.

## EARTHQUAKE ZONING MAP OF TURKEY



### 1.2 ORGANIZATIONAL STRUCTURE OF TCIP

With its structure and operation, TCIP constitutes one of the best examples of public-private sector collaboration. Technical and operational tasks of the institution are handled by an insurance and reinsurance corporation designated by the Undersecretariat of Treasury for periods of five years each. While insurance coverage is provided by the Institution, Compulsory Earthquake Insurance is also offered to the dwelling owners by insurance companies. As it stands, TCIP has established an efficient operational structure by gathering the advantages of public and private sector under single roof.

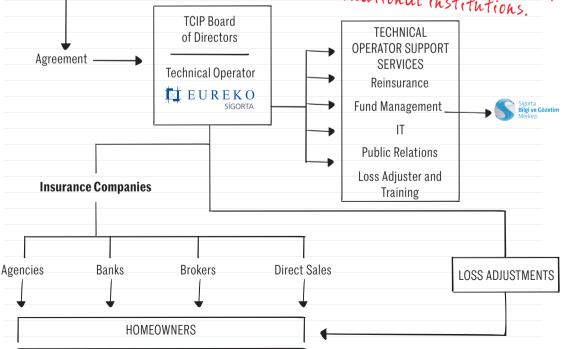
In order to ensure the sustainability of the policies, and to include the uninsured dwelling owners into the system, TCIP continues its operations without

> T.C. BAŞBAKANLIK HAZİNE MÜSTESARLIĞI

any room for interruptions. To ensure a sustainable growth in Compulsory Earthquake Insurance, TCIP not only conducts supervision over policy creation, but also undersigns significant promotion and social responsibility projects, which improve the awareness of earthquake and insurance as well.

Technically, TCIP is an insurance pool, and as such it does not require any physical structuring in order to conduct the businesses belonging to the institution. Instead of such a structure, TCIP outsources services for any and all the tasks for purposes of increasing the efficiency and minimizing the costs. Overall organization structure of the institution is as follows.

TCIP, founded in a collaborative effort between the public and private sector, has achieved a very successful performance and has since then become a showcase scheme for many countries as pointed by international institutions.



## **1.3 BOARD OF DIRECTORS**

TCIP is managed by a Board of Directors consisting in total of seven members, one being the Chairman of the Board. The member of the Board of Directors consist of high-ranking bureaucrats (5), private sector official (1) and university representative (1). The formation of the TCIP Board of Directors is based on the representation of the relevant parties as well as to execute the Compulsory Earthquake Insurance program successfully.

Accordingly, the Board of Directors, including the representatives of various institutions and entities, consists of the persons specified in the table below.

## Chairman and Members of the Board of Directors

Name	Title	Institution and Title
Murat KAYACI	Chairman	Insurance General Directorate, Undersecretariat of Treasury, Deputy General Manager
Prof. Dr. Mustafa ÖZTÜRK	Member	Ministry of Environment and Urban Planning, Undersecretary
Mehmet Halis BİLDEN	Member	Prime ministry disaster and emergency management presidency (AFAD), Head
Prof. Dr. Mustafa ERDİK	Member	Boğaziçi University
Emre ÖNYURT	Member	Capital Markets Board, Vice-Chairperson
Mehmet Akif EROĞLU	Member	Association of Insurance, Reinsurance and Pension Companies of Turkey, Secretary General
Can Akın ÇAĞLAR	Member	Technical Operator Eureko Sigorta A.Ş., General Manager

## **1.4 TECHNICAL OPERATOR**

The running of the technical and operational tasks of TCIP is ensured by way of outsourcing services. Pursuant to the 6th article of the Catastrophe Insurance Law No. 6305, a service contract for a period of maximum five years is executed between the Undersecretariat of Treasury and the company selected for this purpose and the said contract is renewed in the same manner. Within this scope, for the 5-year term between August 8, 2015-2020, Eureko Sigorta A.Ş. has been designated as the technical operator for the third time.

## Efficient Technical and Operational Business Processes

The technical operator is responsible for conducting TCIP's technical and operational businesses within the framework of the decisions taken by the TCIP's Board of Directors and the principles set out in the service agreement. Within this framework, the main duties of the Technical operator are:

» Printing and distribution of the policies, collection

- of the premiums, and performing all managerial and
- operational works necessary for loss assessment
- and indemnity payments together with all related stakeholders,

- Implementation of risk transfers and reinsurance plans,
- Steering the institution's resources to investment within the framework of the specified principles and restrictions, conducting the relationships with the portfolio management companies working with TCIP, informing the Board of Directors concerning the works of the portfolio management companies,
- Tracking all accounts and operations as well as the incomes and expenses of the institution in special and separate accounts and keeping accounting records of the same.

Conducting public relations, promotion and training campaigns, Carrying out the necessary correspondences with other persons, Institutions and establishments on behalf of the institution, retaining the information/ documents

The running of technical and operational tasks of TCIP is handled by Eureko Sigorta within the scope of Ontsourced Services Contract. appropriately and realizing the procurement of the goods and services required to be obtained externally as required by the businesses of the Institution.

 Preparing the studies, information and reports required by the Undersecretariat of the Treasury.



The main objective of Eureko Sigorta's responsibilities pertaining to the Technical Operations of TCIP is to increase the penetration rate as well as perfecting the loss operations. With this objective in mind. Eureko

performs its responsibilities by way of utilizing the best technologies to create the necessary operating order and creating the infrastructure that would allow the institution to provide sufficient loss services and allocate the necessary reinsurance programs to ensure that sufficient financial resources are readily available for the Institution. All these works are carried out in consideration of the fact that TCIP is an Institution that conducts its operations in keeping with the principles of responsibility.

## 1.5 COMPULSORY EARTHQUAKE INSURANCE

As of end of 2016, all elementary insurance companies operating in Turkey as well as 16,000 agencies of these companies across Turkey render TCIP easily accessible throughout the country.

## 1.5.1 COVERAGE

The Compulsory Earthquake Insurance is, in general, an insurance system developed for the dwellings remaining within the borders of the municipality.

The Catastrophe Insurance Law no. 6305 and the relating secondary regulations clearly defined the buildings covered by this insurance.

### **Covered Buildings:**

The buildings constructed as dwellings on areas which are subject to private ownership and have registered title deeds,

- Independent sections within the scope of the Condominium Law no. 634
- Independent sections inside such buildings and used as place of business, office and for similar purposes,
- » Dwellings constructed by the State or through the loans borrowed due to natural disasters

The buildings satisfying the above conditions and having an established construction servitude, the buildings having no type classification yet and the attribute of which are still shown as "land etc." at the land register as well as the cooperative houses shall be subject to Compulsory Earthquake Insurance.

The dwellings with no separate title yet may be insured based upon the statement of the insured by using the land title information.

### The following buildings are excluded from the scope of the insurance:

- Buildings registered to the village population and constructed in village settlement areas and also in the surrounding and adjacent areas by permanent residents of the village,
- Buildings that are utilized fully for commercial or industrial purposes,
- Buildings and independent sections that are subject to the Public Residences Law No. 2946 dated 9.11.1983 and are utilized as public service buildings,
- Buildings that do not have a project and have not yet received engineering services,
- Buildings that are determined to have been restored in a way that may negatively affect the load bearing system and have been thus weakened,
- Buildings that have been constructed in a way that is contrary to the applicable legislations and the projects
- that may negatively affect the load bearing system,
  Buildings that have been resolved to be demolished by the authorized public Institutions and buildings that are neglected, damaged or deserted, and are not fit to be used as dwellings.

Compulsory Earthquake Insurance policies can be issued by the authorized insurance companies and their

agencies on behalf of TCIP. At present, 31 authorized insurance companies and their agencies are providing Compulsory Earthquake Insurance coverage on behalf of TCIP. In addition to this, the Institution continues renewal information and direct sale activities in order to eliminate losses in renewals due to failure to follow up.

## **1.5.2 CHECK POINTS**

### **Electricity and Water Subscriptions**

The following is prescribed under Article 11 of the Catastrophe Insurance Law No. 6305, "The existence of the Compulsory Earthquake Insurance is checked by the related institutions in the electricity and water subscriptions established in relation to the buildings and individual sections of buildings that are within the scope of the Compulsory Earthquake Insurance"; and within this scope Compulsory Earthquake Insurance checks have been started to be made during the registry of electricity and water subscriptions since 18th of August 2012.

During the controls conducted during Electricity and Water operations, services are prepared which will ensure electronic data flow between the institutions in order to achieve operational ease, and the same is opened for use by the institutions wishing to use.

### **Title Deed Processing**

Since 2000, the residential unit subject to processing is required to be insured while official transactions such as purchase-sales and mortgages are performed at title deed offices. This matter has been re-regulated under the 11th article of the Law No. 6305. In order to provide convenience to the citizens in title deed transactions and to decrease the operational workload of the offices, an integrated system has been established to ensure electronic information flow among the Institutions.

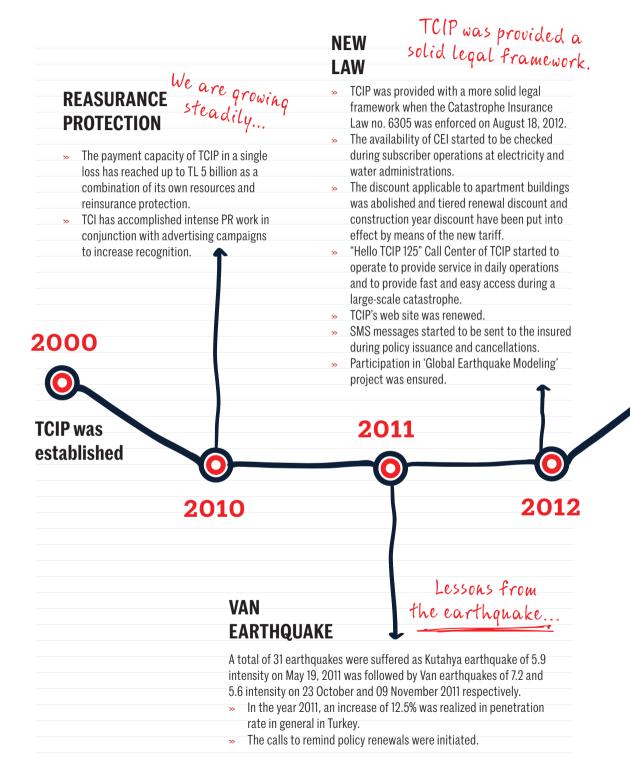
#### **Housing Loans**

Pursuant to the 13th article of the Insurance Law No. 5684, 24th article of the Regulation on the Operating Procedures of the Turkish Catastrophes Insurance Pool, 5th article of the Regulation on the Insurance Implementation Principles related to Personal Loans and the 7th article of the Compulsory Earthquake Insurance Tariff and Instructions, the insurance is required to be purchased in relation to the housing loans made available by the banks. If the person using the Housing Loan did not purchase Compulsory Earthquake Insurance, the bank making available the housing loan must purchase the insurance by informing the insured. If the insured fails to renew the insurance coverage during the term of the loan, the insured must be notified by the bank to have the relevant policy renewed.

## **1.5.3 AUTHORIZED INSURANCE COMPANIES**

The following 31 authorized insurance companies and their agencies prepare compulsory Earthquake Insurance policies on behalf of TCIP.

1. AIG SİGORTA A.Ş.	
2. AK SİGORTA A.Ş.	
3. ALLIANZ SİGORTA A.Ş.	
4. ANADOLU ANONİM TÜRK SİGOR	
5. ANKARA ANONİM TÜRK SİGORT	ASTI. prevalence
6. AXA SİGORTA A.Ş.	1. concel
7. DUBAI STARR SİGORTA A.Ş.	Asti. prevalence ( Compulsory
8. ERGO SİGORTA A.Ş.	Earthouse
9. ETHICA SİGORTA A.Ş.	Earthquake
10. EUREKO SİGORTA A.Ş.	insurance bo
11. GENERALİ SİGORTA A.Ş.	been expanded
12. GROUPAMA SİGORTA A.Ş.	rpunded
13. GULF (TURINS) SİGORTA A.Ş.	means of
14. GÜNEŞ SİGORTA A.Ş.	the effective
15. HALK SİGORTA A.Ş.	
16. HDI SİGORTA A.Ş	control
17. IŞIK SİGORTA A.Ş.	mechanisms
18. KORU MUTUEL SİGORTA	Petal-1:1
19. LIBERTY SİGORTA A.Ş.	established.
20. MAPFRE GENEL (MAPFRE) SİG	GORTA A.Ş.
21. NEOVA SIGORTA A.Ş.	
22. ORİENT SİGORTA A.Ş.	
23. RAY SİGORTA A.Ş.	
24. S.S. DOĞA SİGORTA KOOPERA	TIFI
25. SBN SİGORTA A.Ş.	
26. SOMPO JAPAN SİGORTA A.Ş.	
27. TURKLAND (DEMİR) SİGORTA A	ł.Ş
28. TÜRK NİPPON SİGORTA A.Ş.	
29. UNICO SİGORTA A.Ş.	
30. ZİRAAT SİGORTA A.Ş.	
31. ZURICH SİGORTA A.Ş.	



## **TRUE ORTHOPHOTO** PROJECT

- Significant support was provided to the Orthophoto creation project that was being conducted by the Ministry of Environment and Urbanization across the country.
- » TCIP established a centralized Reporting Infrastructure.
- The awareness was increased by sending TCIP signboards to agencies.
- It is intended to protect the CEI portfolio by means of renewals in a scheme of renewal campaigns oriented to agencies.

## 2013

## 2014 NATIONAL ADDRESS **DATABASE (NAD) PROJECT**

- TCIP started Address Code application in full compliance with NAD in all CEI policies that are
- issued starting from 1 March 2013. We spearheaded the move to instill "Address Code" » CONTROL POINTS- To ensure
- effective control of title
- deeds, system integration
- with General Directorate
- of Land Registry and
- Cadastre was realized.
- Likewise, integration with
- electricity and water
- administrations was also established.
- CATASTROPHE BOND (CAT-BOND) In addition to
- reinsurance facilities, TCIP also started to use cost
- effective alternative risk transfer instruments.

## **TCIP MOBILE PROJECT**

- With TCIP Web Portal, it is now possible to open loss files, allowing a transparent structure to track the loss files.
- » Initial Loss file was opened via the new Loss application, allowing quick transfer of information via mobile.
- New Promotion and PR agencies of TCIP were identified.

Loss assessment can now be transferred to CIP instantaneously.

2015

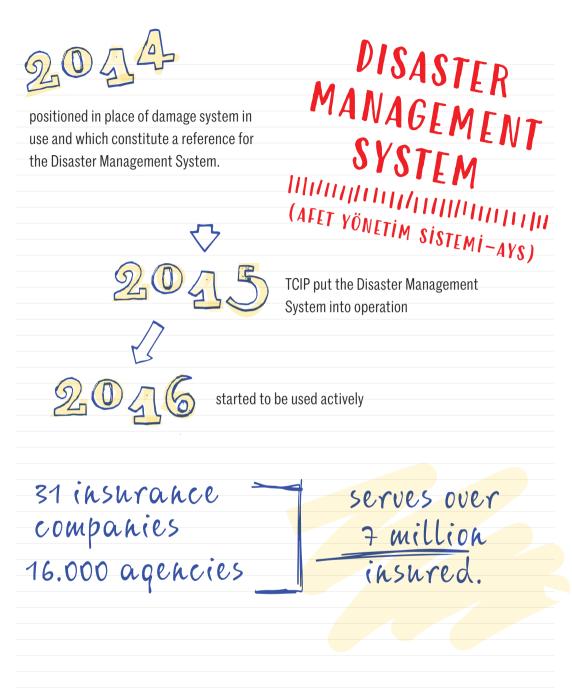
## NATURAL DISASTER MANAGEMENT PROJECT

- Natural Disaster Management Project
- SBM Assignment
- ARYS Map based natural disaster support structure was established.
  - For the first time in the world, TCIP developed a mobile application whereby the appraisal process could be run online on a tablet PC.

We are ready for a possible large scale earthquake in Istanbul...

perception.

2016



As such the most important phase of loss management software that served in an effective manner in all post-earthquakes – from minor to major – compatible with future needs besides its policy generating service that simultaneously operates in integration with various public institutions.

## Section 2

# TCIP IN FIGURES

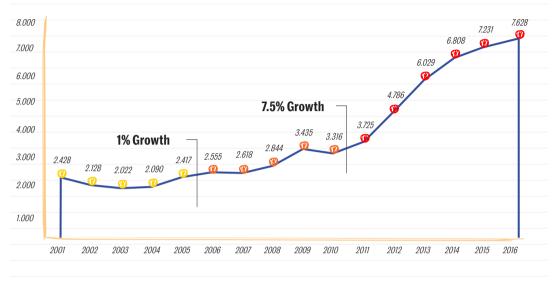
## TCIP IN FIGURES

## **PENETRATION RATE BY REGIONS**



TURKISH CATASTROPHE INSURANCE POOL (TCIP) 2016 ANNUAL REPORT

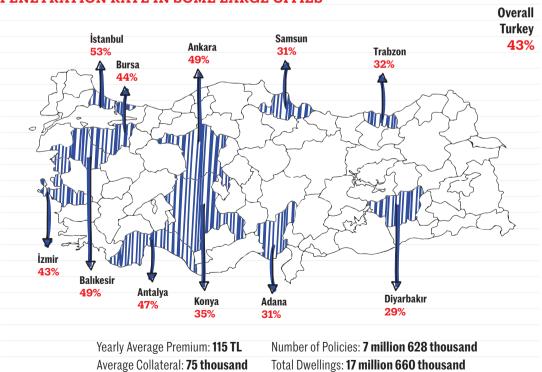
20



### **COMPULSORY EARTHQUAKE INSURANCE GROWTH GRAPHIC**

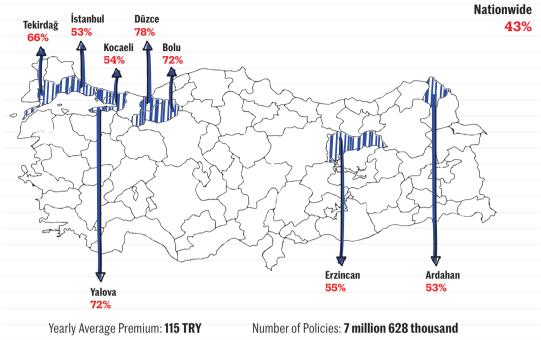
2006 - 2011 CAGR 8%

2011 - 2016 CAGR 15%



## PENETRATION RATE IN SOME LARGE CITIES

TURKISH CATASTROPHE INSURANCE POOL (TCIP) 2016 ANNUAL REPORT

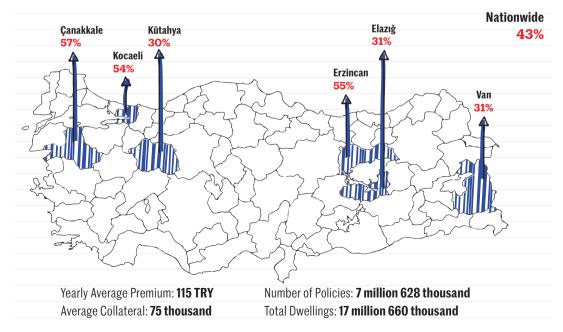


#### **CITIES IN WHICH THE PENETRATION RATE IS IN EXCESS OF 50%**

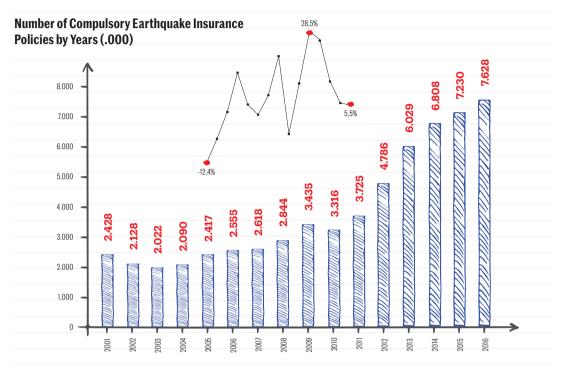
Average Collateral: 75 thousand

Total Dwellings: 17 million 660 thousand

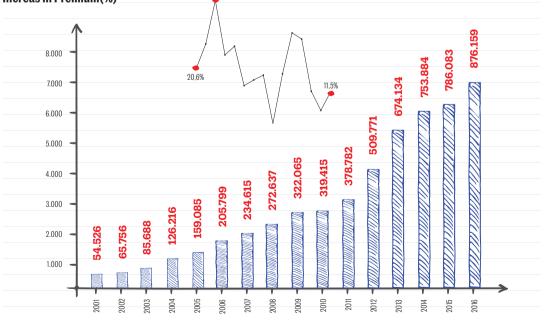
### PENETRATION RATE IN CITIES THAT SUFFERED EARTHQUAKES



## **2.1 POLICIES ISSUED ON THE BASIS OF YEARS**



Number of Policies (.000 TL) and Increas in Premium(%)



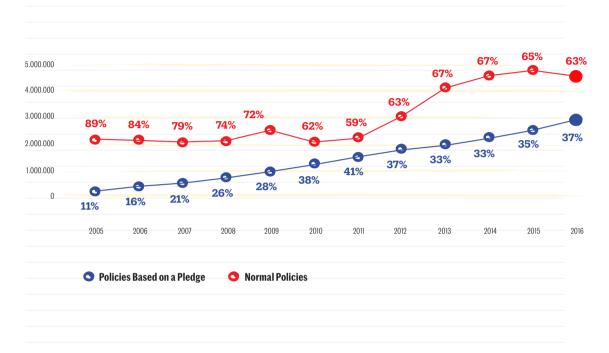
47,3%

TURKISH CATASTROPHE INSURANCE POOL (TCIP) 2016 ANNUAL REPORT

## **2.2 POLICY GENERATION OF COMPANIES**

CEI POLICY GENERATION REPORT							
2015 2016							
Generation by Companies	Number of Policies	Policy Rate (%)	Number of Policies	Policy Rate(%)	Policy Increase(%)		
EUREKO SİGORTA A.Ş.	311.905	4,3	358.619	4,7	15,0		
AKSİGORTA A.Ş.	895.798	12,4	882.796	11,6	-1,5		
AIG SİGORTA A.Ş.	54.985	0,8	42.651	0,6	-22,4		
ANADOLU SİGORTA	825.770	11,4	863.341	11,3	4,5		
ANKARA SİGORTA A.Ş.	53.275	0,7	61.206	0,8	14,9		
GROUPAMA SİGORTA A.Ş.	253.847	3,5	231.695	3,0	-8,7		
HALK SİGORTA A.Ş.	336.592	4,7	394.826	5,2	17,3		
UNICO SİGORTA A.Ş.	131.078	1,8	118.442	1,6	-9,6		
ZURICH SİGORTA A.Ş.	192.882	2,7	204.006	2,7	5,8		
GENERALİ SİGORTA A.Ş.	78.553	1,1	100.569	1,3	28,0		
GÜNEŞ SİGORTA A.Ş.	475.378	6,6	507.161	6,6	6,7		
YAPI KREDİ SİGORTA A.Ş.	-33	0,0	0	0,0	-100,0		
HÜR SİGORTA A.Ş.	539	0,0	0	0,0	-100,0		
ERGO SİGORTA A.Ş	290.094	4,0	294.017	3,9	1,4		
AXA SİGORTA A.Ş.	717.497	9,9	698.653	9,2	-2,6		
RAY SİGORTA A.Ş.	111.188	1,5	111.458	1,5	0,2		
ALLIANZ SİGORTA A.Ş.	555.219	7,7	718.965	9,4	29,5		
LIBERTY SİGORTA A.Ş.	79.055	1,1	86.874	1,1	9,9		
MAPFRE (GENEL) SİGORTA A.Ş.	184.064	2,5	170.634	2,2	-7,3		
HDI SİGORTA A.Ş.	306.513	4,2	316.093	4,1	3,1		
EGE SİGORTA A.Ş.	82.291	1,1	0	0,0	-100,0		
IŞIK SİGORTA A.Ş.	154.624	2,1	115.653	1,5	-25,2		
SOMPO JAPAN SİGORTA A.Ş.	194.142	2,7	212.862	2,8	9,6		
SBN SİGORTA A.Ş.	46.530	0,6	48.371	0,6	4,0		
TURKLAND (DEMİR) SİGORTA A.Ş.	13.354	0,2	12.058	0,2	-9,7		
DUBAI STARR SIGORTA A.Ş.	18.474	0,3	9.325	0,1	-49,5		
TÜRK NİPPON SİGORTA A.Ş.	36.711	0,5	41.082	0,5	11,9		
NEOVA SİGORTA A.Ş.	176.896	2,4	197.407	2,6	11,6		
ZİRAAT SİGORTA A.Ş.	556.855	7,7	677.228	8,9	21,6		
S.S. KORU SIGORTA KOOPERATIFI	23.874	0,3	36.087	0,5	51,2		
DASK	32.256	0,4	11.840	0,2	-63,3		
GULF (TURINS) SİGORTA A.Ş.	44	0,0	49	0,0	11,4		
DOĞA SİGORTA KOOPERATİFİ	31.731	0,4	74.856	1,0	135,9		
ORIENT SIGORTA A.Ş.	8.448	0,1	13.248	0,2	56,8		
ETHİCA SİGORTA A.Ş	0	0,0	16.257	0,2	0,0		
TOTAL	7.230.429	100,0	7.628.329	100,0	5,5		

TURKISH CATASTROPHE INSURANCE POOL (TCIP) 2016 ANNUAL REPORT



## **2.3 NUMBER OF POLICIES BASED ON A PLEDGE**

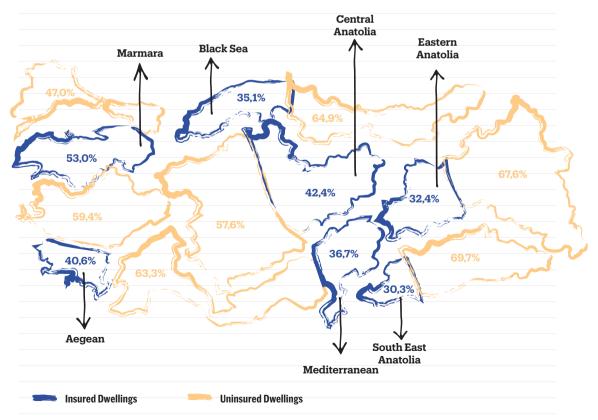
## 2.4 NUMBER OF NEW POLICIES AND POLICY RENEWALS





### **2.5 POLICY PRODUCTION ON A MONTHLY BASIS**

### **2.6 RATE OF PENETRATION ON A REGIONAL BASIS**



TURKISH CATASTROPHE INSURANCE POOL (TCIP) 2016 ANNUAL REPORT

## **2.7 PENETRATION RATER ON A PROVINCIAL BASIS**

# There are about 17.6 million dwellings that fall within the scope of Compulsory Earthquake Insurance.

. . .

City	Insurance Dwellings	<b>Total Dwellings</b>	Penetration Rate	Total Premium (TL)	Insurance Price(TL)
ADANA	140.565	448.380	31,3	16.931.871	11.726.092.285
ADIYAMAN	23.552	78.760	29,9	2.969.108	1.918.443.260
AFYONKARAHİSAR	43.948	170.720	25,7	5.333.002	3.038.131.155
AKSARAY	25.786	90.530	28,5	1.130.324	2.026.627.235
AMASYA	26.832	73.980	36,3	3.943.169	1.906.708.540
ANKARA	777.763	1.525.130	51,0	40.422.894	64.000.072.675
ANTALYA	285.400	610.140	46,8	28.429.428	20.832.450.365
ARDAHAN	4.013	7.610	52,7	449.661	299.698.030
ARTVİN	13.470	32.060	42,0	773.014	1.026.934.285
AYDIN	129.627	284.970	45,5	19.026.707	9.076.577.995
AĞRI	10.916	41.660	26,2	1.243.772	804.504.670
BALIKESİR	163.870	335.710	48,8	22.840.029	10.752.381.705
BARTIN	14.459	30.620	47,2	1.958.779	937.176.015
BATMAN	10.160	59.430	17,1	1.337.925	905.827.655
BAYBURT	2.946	12.620	23,3	229.112	255.068.885
BOLU	42.456	58.660	72,4	6.448.296	3.262.068.120
BURDUR	16.388	63.030	26,0	2.519.807	1.176.766.025
BURSA	297.916	670.750	44,4	46.802.881	23.019.420.530
BILECIK	21.237	51.200	41,5	2.822.280	1.532.484.725
BİNGÖL	16.918	30.780	55,0	2.833.064	1.427.867.485
BITLIS	8.818	38.150	23,1	1.277.199	735.667.090
DENİZLİ	90.731	251.500	36,1	14.753.004	7.182.598.425
DÜZCE	37.360	48.080	77,7	5.679.238	2.815.432.400
DİYARBAKIR	61.493	211.240	29,1	8.017.205	5.361.577.125
EDİRNE	49.229	100.430	49,0	3.343.067	3.705.053.700
ELAZIĞ	37.661	123.310	30,5	5.076.471	3.437.547.850
ERZURUM	34.863	118.900	29,3	4.405.217	2.977.064.920

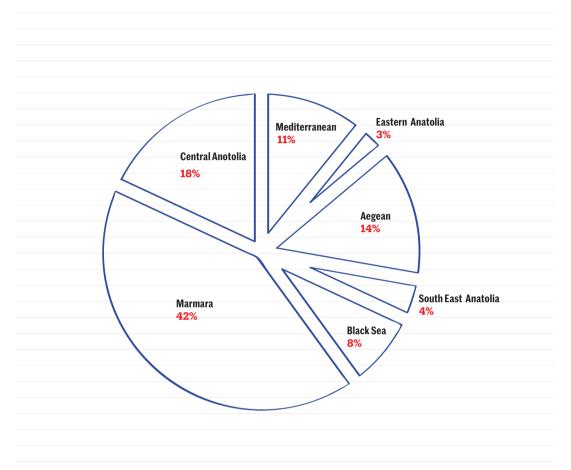
ERZİNCAN	25.122	45.870	54,8	3.960.193	1.924.311.475
ESKİŞEHİR	123.468	233.240	52,9	12.427.942	8.211.381.840
GAZİANTEP	109.587	290.980	37,7	7.501.558	8.303.754.685
GÜMÜŞHANE	6.332	27.140	23,3	549.995	453.169.920
GIRESUN	28.887	101.750	28,4	1.610.087	2.277.156.780
HAKKARİ	2.067	22.800	9,1	359.100	169.405.435
HATAY	87.469	274.450	31,9	13.418.637	6.529.889.530
ISPARTA	28.239	121.580	23,2	4.130.511	1.936.215.410
IĞDIR	8.114	20.850	38,9	847.609	555.055.650
KAHRAMANMARAŞ	55.888	188.050	29,7	6.858.460	3.673.987.785
KARABÜK	24.235	56.630	42,8	3.269.799	1.558.807.115
KARAMAN	20.672	56.810	36,4	867.834	1.639.578.835
KARS	11.575	33.050	35,0	1.275.042	841.892.995
KASTAMONU	27.022	73.710	36,7	3.332.090	1.879.519.285
KAYSERİ	117.371	335.870	34,9	8.293.593	9.575.214.345
KIRIKKALE	19.586	77.710	25,2	2.510.149	1.272.983.260
KIRKLARELİ	41.854	87.430	47,9	2.048.391	3.318.934.140
KIRŞEHİR	21.165	60.690	34,9	2.947.937	1.452.769.220
KOCAELİ	227.602	421.370	54,0	35.030.535	17.483.413.325
KONYA	177.629	512.870	34,6	10.234.804	13.770.524.115
KÜTAHYA	46.373	155.120	29,9	5.529.414	3.262.903.890
KİLİS	8.364	21.340	39,2	478.333	497.965.365
MALATYA	55.766	165.690	33,7	8.145.522	4.492.420.780
MANİSA	116.365	309.460	37,6	16.507.329	7.708.218.255
MARDIN	23.269	91.660	25,4	1.593.311	1.746.785.980
MERSİN	178.890	440.730	40,6	11.668.085	14.424.676.230
MUĞLA	128.090	241.650	53,0	18.364.015	8.819.646.435
MUŞ	5.113	31.410	16,3	778.124	372.636.295
NEVŞEHİR	23.083	74.640	30,9	1.529.840	1.663.546.400

TCIP IN FIGURES

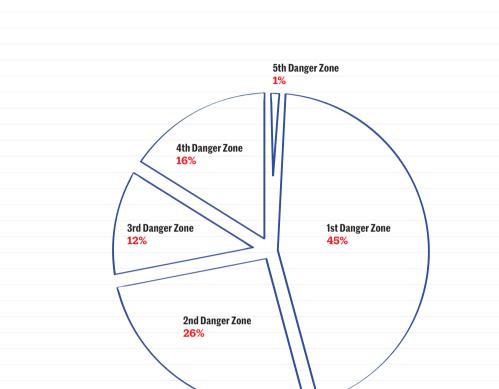
NİĞDE	23.022	89.250	25,8	1.090.264	1.662.256.510
ORDU	58.641	170.280	34,4	4.416.454	4.337.834.915
OSMANİYE	27.677	89.670	30,9	4.091.978	2.136.284.455
RİZE	19.309	74.910	25,8	976.588	1.528.588.370
SAKARYA	124.692	194.190	64,2	18.549.862	9.042.679.635
SAMSUN	90.094	287.770	31,3	10.106.088	7.020.990.960
SİNOP	17.419	44.090	39,5	1.129.738	1.216.887.155
SİVAS	42.680	130.140	32,8	2.996.791	3.048.825.985
SİİRT	6.571	33.410	19,7	1.018.399	490.319.330
TEKİRDAĞ	174.987	264.840	66,1	14.710.996	13.313.957.545
TOKAT	33.815	127.320	26,6	4.967.021	2.375.511.305
TRABZON	66.897	208.190	32,1	3.436.295	5.439.235.295
TUNCELİ	5.858	16.220	36,1	695.643	460.512.420
UŞAK	25.445	82.710	30,8	3.025.638	1.962.210.730
VAN	25.294	80.720	31,3	3.601.128	2.468.970.345
YALOVA	56.280	79.590	70,7	8.430.671	4.128.898.900
YOZGAT	26.969	99.860	27,0	1.973.420	1.920.075.695
ZONGULDAK	40.446	137.510	29,4	4.806.349	2.920.802.485
ÇANAKKALE	72.023	126.590	56,9	10.077.446	4.841.075.710
ÇANKIRI	14.173	45.760	31,0	1.897.657	937.104.360
ÇORUM	43.655	128.460	34,0	4.939.450	3.249.183.935
İSTANBUL	1.955.643	3.682.450	53,1	254.407.111	144.855.052.120
İZMİR	481.311	1.120.220	43,0	73.593.683	35.924.360.885
ŞANLIURFA	55.430	171.420	32,3	3.858.671	4.204.796.575
ŞIRNAK	2.424	33.220	7,3	297.219	188.982.220
TOTAL	7.628.329	17.661.690	43,2	876.159.323	575.632.405.765

29

## **2.8 POLICY BREAKDOWN ON REGIONAL BASIS**

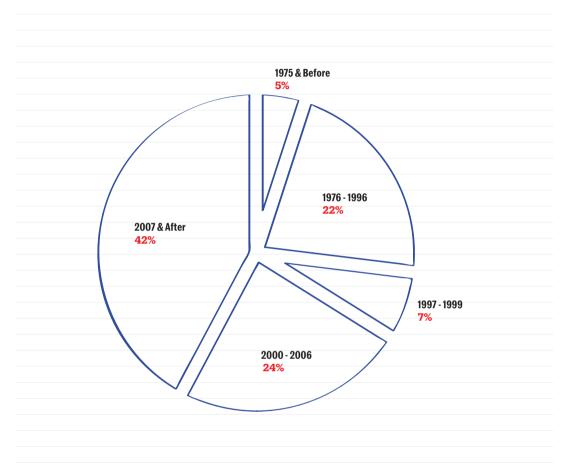


Regions	Total Dwellings	Insured Dwellings	Penetration Rate (%)	Collateral(TL)	Premium (TL)
Mediterranean	2.236.030	820.516	36,7	62.436.362.085	88.048.776
East Anatolia	777.020	252.098	32,4	20.967.555.440	34.947.746
Aegean	2.616.350	1.061.890	40,6	76.974.647.770	156.132.791
South East Anatolia	991.460	300.850	30,3	23.618.452.195	27.071.728
Black Sea	1.693.780	594.275	35,1	44.461.075.765	62.571.563
Marmara	6.014.550	3.185.333	53,0	235.993.352.035	419.063.270
Central Anatolia	3.332.500	1.413.367	42,4	111.180.960.475	88.323.450
Turkey General	17.661.690	7.628.329	43,2	575.632.405.765	876.159.323



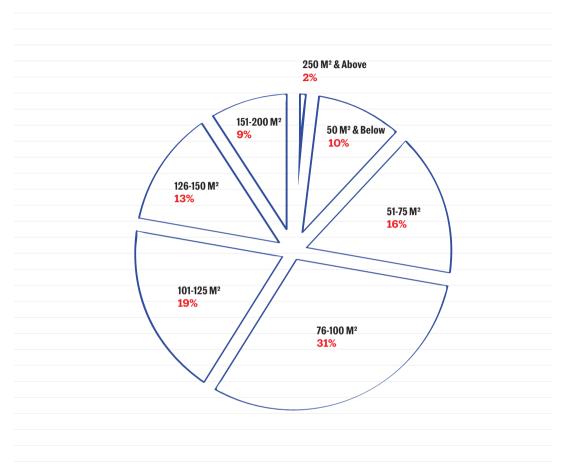
## 2.9 POLICY BREAKDOWN ON DANGER ZONE

<b>Risk Degrees</b>	Number of Policies	Policy Breakdown (%)	Premium (TL)	Premium Distribution (%)
1st Degree	3.473.188	45,5	527.311.258	60,2
2nd Degree	1.987.533	26,1	224.066.531	25,6
3rd Degree	887.636	11,6	61.533.511	7,0
4th Degree	1.202.814	15,8	60.131.838	6,9
5th Degree	77.158	1,0	3.116.186	0,4
Total	7.628.329	100,0	876.159.323	100,0



## 2.10 POLICY BREAKDOWN ON BUILDING CONSTRUCTION YEAR BASIS

Risk Degrees	Number of Policies	Policy Breakdown (%)	Premium(TL)	Premium Distribution (%)
1975 & Before	397.178	5,2	41.226.809	4,7
1976 - 1996	1.702.606	22,3	202.289.823	23,1
1997 - 1999	564.857	7,4	67.824.724	7,7
2000 - 2006	1.787.427	23,4	210.432.294	24,0
2007 & After	3.176.261	41,6	354.385.674	40,4
Total	7.628.329	100,0	876.159.323	100,0



## 2.11 POLICY BREKDOWN ON BUILDING FLOOR SPACE BASIS

Building Floor Spaces	Number of Policies	Policy Breakdown (%)	Premium (TL)	Premium Distribution (%)
50 M <sup>2</sup> & Below	792.884	10,4	49.338.338	5,6
51-75 M <sup>2</sup>	1.251.349	16,4	103.764.965	11,8
76-100 M <sup>2</sup>	2.337.500	30,6	247.390.066	28,2
101-125 M <sup>2</sup>	1.443.265	18,9	180.603.798	20,6
126-150 M <sup>2</sup>	997.783	13,1	144.495.364	16,5
151-200 M <sup>2</sup>	669.121	8,8	121.365.803	13,9
250 M <sup>2</sup> & Above	136.427	1,8	29.200.990	3,3
Total	7.628.329	100,0	876.159.323	100,0

# AYS LOSS Software

is designed end-to-end for the systematic management of the entire loss life cycle



it can create mass loss files



assignment of adjusters to loss files and management are automatically handled allows for receiving notifications from different channels



large quantities of loss files are processed effectively

further allows indemnification payments are quickly and correctly made to the insured.

Section 3

# TARIFF AND INSURANCE APPLICATIONS

### TARIFF & INSURANCE APPLICATIONS

#### 20%+10% DISCOUNT OPPORTUNITY

The insured parties that pay their premiums regularly and on time can now pay lower premiums as they take advantage of the discount opportunities.

The coverage provided up to an amount of TRY 160,000 under the Compulsory Earthquake Insurance Scheme ensures that all your work and accumulations do not turn into dust.\*

#### INSURANCE TARIFF AND PREMIUM CALCULATIONS

The premium to be paid is calculated by means of adding TRY 10 to the amount calculated as a result of applying the following tariff on the basis of the earthquake zone and the construction type. For the risk coverage within the province of Istanbul, this amount is applied as TRY 15. The minimum amount of premium shall be in any case TRY 70, TRY 60, TRY 50, TRY 40 and TRY 30 respectively from the first region to the fifth region according to the risk region.

Structure Style	1 <sup>st</sup> Region	2 <sup>nd</sup> Region	3 <sup>rd</sup> Region	4 <sup>th</sup> Region	5 <sup>th</sup> Region
	‰	‰	‰	‰	‰
A-Steel, Ferro concrete, carcass structures	2,20	1,55	0,83	0,55	0,44
<b>B-</b> Stone Masonry Structures	3,85	2,75	1,43	0,60	0,50
<b>C-</b> Diğer Yapılar	5,50	3,53	1,76	0,78	0,58

#### Unit square-meter Costs According to Construction Styles

	Year 2016
A-Steel, Ferro Concrete Carcass Structures	TRY 750
B-Stone Masonry Structures	TRY 540
C-Other Structures	TRY 275

#### The insurance cost and premium are calculated as follows:

Sum insured = The gross area of the dwelling  $(m^2)$  x unit square-meter cost according to construction type (TRY)

The insurance coverage of a residence, to which Compulsory Earthquake Insurance has been applied, cannot exceed TRY 160,000 regardless of the earthquake zone and the construction type.

Premium = (Insurance Cost TRY x Tariff cost (%) + Fixed cost (TRY 10 or TRY 15)

The discounts are applied before the fixed cost is added.

\*This amount is determined by calculating the cost to rebuild the dwelling.

#### **Renewal and Construction Year Discount**

- In case the policy is renewed within 30 days at the end of its term, a renewal discount of 10% in the first renewal and 20% in the following renewals
- is applied over the tariff prices for the renewed
- policy. The discount rate of 20% is maintained in the
- renewals after the second one.
- » For the buildings that have a building license dated 2007 or later, a construction year discount of 10%
- over the tariff price will be applied.

#### **Deductibility and Insurance Term**

For each loss, a deduction corresponding to 2% of the insurance cost is applied. The institution is responsible for the part that exceeds the deductible amount calculated in this manner. In terms of deduction application, each 72 hour period is deemed to be a loss. The term of the insurance is one year. The insurance needs to be renewed at the end of this term.

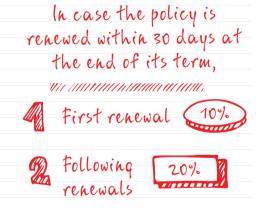
#### **Commission Rates**

A commission corresponding to 12.5% for the risks within the borders of the Istanbul Province and a commission corresponding to 17.5% for the risks in other Provinces are paid over the Compulsory Earthquake Insurance premium on the policies drawn up by insurance companies and their agencies authorized to contract Compulsory Earthquake Insurance on behalf of the Institution. Limited only to renewal policies, the said rates are implemented as 15% and 20% respectively.

However, for each insurance agreement, the minimum commission to be paid to the insurance company is TRY 10, and TRY 15 for the renewal commissions. TRY 3 of the paid minimum commission belongs to the insurance company while TRY 7 belongs to the agent; and for the renewal policies, TRY 3 belongs to the insurance company and TRY 12 belongs to the agency. Within the scope of the rates mentioned above, in case the commission to be paid to the insurance company exceeds TRY 10, and TRY 15 for the renewal policies, the commission to be provided to the agency, providing that it is not below the minimum amount, is defined freely between the insurance company and the agency.

#### **Voluntary Insurance**

For voluntary housing insurance policy inclusive of earthquake coverage to be issued for independent sections and buildings within the scope of Compulsory Earthquake Insurance, it would be necessary for compulsory earthquake insurance policies to have already been issued for these buildings and sections. However in case the value of the independent sections and buildings, for which Compulsory Earthquake Insurances have been purchased, exceeds the insurance amount calculated based on the principles specified in the tariff, on the amount exceeding the concerned sum insured, provided that the Compulsory Earthquake Insurance has been purchased, a voluntary earthquake insurance may be set up.

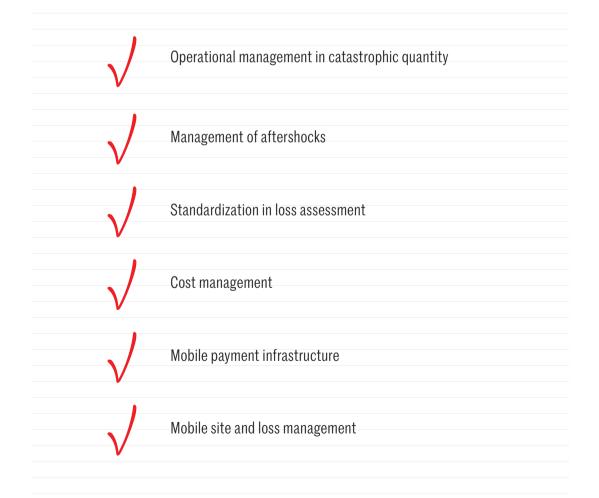


disconnat applied over the tariff prices.

Functions are started to be tested even partially with the use of the system in the daily life.

Assessment and payment operations are performed via

## NEW METHODS AND MODELS



Section 4

# REINSURANCE PROTECTION AND NATURAL DISASTER BONUS

### **REINSURANCE PROTECTION & NATURAL DISASTER BONUS**

TCIP's Reinsurance protection is renewed on the basis of the characteristics of the current portfolio as of 1 November 2016 and an reinsurance protection which provides 2.75 billion Euro coverage for excess of loss.

The important issues that the institution takes into consideration pertaining to the payment of losses and the provisioning of the reinsurance program are as follows;

- Providing opportunities for the development of the institution's resources,
- Creating a high quality and dependable reinsurer panel,
- » Ensuring coverage diversity and
- Taking the necessary protections by accurately determining the loss load that the portfolio will create

In 2016, focus and priority is dedicated to the efforts intended to ensure coverage diversity and cost effectiveness of the institution.

 Structured capital markets reinsurance capacity limit has been increased,

The total loss - payment capacity of TCIP consists of the institution funds and reinsurance capacity and is approximately at the level of TRY 16 billion. }

- » Catastrophe bond capacity continues under the name Bosphorus Ltd
- » Reinsurance support has been provided by the State.

The reinsurance protection of the Institution has been renewed by taking into consideration the cost increases (PLA) that would occur following an earthquake as of 1 November 2016 and a reinsurance protection that consists of six tiers and provides a coverage of 2.75 billion Euro and an excess of loss reinsurance protection that includes reinsurance solutions that have been constructed together with capital markets has been ensured.

Council of Ministers decided for an additional government support of 240 million Euros within the scope of 2016–2017 period traditional reinsurance protection to be provided for excess losses.

#### CAT-BOND

The purpose behind the issuance of catastrophe bonds by the institution includes; to reduce the dependency on conventional risk transfer markets in meeting the increasing loss protection capacity requirement based on the fast growing portfolio, to diversify the loss payment capacity on the basis of the market, product. rate and region to be able to meet the alternative protection requirement, to provide support to the insurance sector as the capacity allocated for the seismic risk of Turkev in the conventional reinsurance market is used less by TCIP. USD 400 million Bosphorus 1 catastrophe bond with a maturity of April 2016, which has been pointed out to be exemplary in terms of its success in the ILS (Insurance Linked Securities) market. was issued as the lowest costing bond until then in terms of its cost.

The entry into this market of the Turkish earthquake risk, one among the few, in the Cat Bond market that is normally dominated by USA's storm/seismic risks, Europe's flood/storm risks and Japan's seismic risk was welcomed by the investors and in spite of the fact that it was the first parametric catastrophe bond issued by our country, it has been one of the most recommended bonds of the year and the one that received the best reinsurance agreement awards.

You can have access to the details of the awards and the international news regarding Bosphorus 1 Re Cat Bond through the websites listed below.

 Bosphorus catastrophe bond a real success story, by Artemis on May 1, 2013

http://www.artemis.bm/blog/2013/05/01/ bosphorus-catastrophe-bond-a-real-successstory-says-turkish-cat-pool/

 Bosphorus Re cat bond upsized to \$400m 30 April 2013 |By Newsdesk

http://www.globalreinsurance.com/story. aspx?source=grbreakingnews&storycode=1402277/

 Turkish catastrophe pool benefits from completion of Bosphorus 1 Re cat bond 30 April 2013 By BusinessInsurance

#### http://www.businessinsurance.com/ article/20130430/NEWS09/130439992#

» Bosphorus 1 Re may prove game-changer for ILS 25-04-2013 By Bermuda Re

http://www.bermudareinsurancemagazine.com/news/ bosphorus-1-re-may-prove-game-changer-for-ils

» Turkish cat pool's Bosphorus 1 Re completes 01-05-2013 By BusinessInsurance

http://www.intelligentinsurer.com/news/turkishcat-pool-s-bosphorus-1-re-completes

Bosphorus 1 Re unveils Turkish quake cat bond 02
 April 2013 By Intelligent Insurer

#### http://www.businessinsurance.com/ article/20130402/NEWS09/130409976

Cat Bond (Bosphorus Ltd.) with validity until 2018 and with additional capacity of US\$ 100 million for Istanbul, additional capacity has been ensured. The total loss payment power of the institution consists of the institution funds and reinsurance capacity and is approximately at the level of TRY 16 billion. The institution's obligations resulting from policies are monitored regularly and the required reinsurance protection limits are established by taking the results obtained from reliable earthquake loss models into consideration.



#### REINSURANCE APPLICATION STRATEGY

The premiums paid for reinsurance protection are the most important cash outflow item of TCIP. In order to reach the targeted cost and placement structures, the following studies are conducted each year and based on the results obtained from these studies, optimum placements have been realized on year-to-year basis.

- » DFA Analysis
- Scenario Based Analysis
- » Risk Modeling
- SLA- Service Level Agreements
- » Alternative Reinsurance Applications (ART)
  - Establishing the Broker Panel
- » Placement Strategies
- Involvement of the Treasury
- » Roadshow

As the number of policies increases, the Institution's need for loss payment capacity increases as well. Regarding the future, this growth trend is expected to continue. It is planned to meet a part of the increasing capacity requirement of the institution from the reinsurance markets. In addition to the reinsurance programs that have been designed for future requirements, works continue to be performed by TCIP in order to utilize other products in the capital markets, primarily Catastrophe bonds. The Institution pays particular attention for the products and instruments constituting the loss payment capacity to display variety in terms of region, rate and product.

ORTHOPHOTO

Support is provided to the insurance sector by carefully creating create competition among the reinsurers, including alternative risk transfer instruments in the program, and by being careful for not depleting the capacity allocated to Turkey's earthquake risk in the conventional reinsurance market during the placements (as TCIP uses less capacity).

The work being conducted in alternative reinsurance markets are in progress for purposes of developing protection instruments similar to Catastrophe Bond. Structured Reinsurance, "Spread Loss", "Top & Drop", "Rate Protection and Spread Loss compound Structuring", "Annual Aggregate XL", "Sidecar" and similar solutions are analyzed all through the period and included in the placement for purposes of improving the negotiation power and meeting the capacity requirement of the institution when they are considered suitable.



#### TARSİM

As per the Cabinet Decree dated 11/09/2015, the "Decision to Provide Reinsurance Support to the Risks Undertaken by Agricultural Insurance Institution by the Turkish Catastrophe Insurance Pool" has been put into effect.

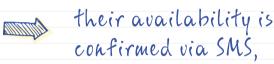
"In case sufficient protection could not be procured from national and international markets for the risks that are undertaken within the scope of the Agricultural Insurance Law dated 14/06/2005 No: 5363. Reinsurance support may be provided to the Agricultural Insurance Pool by the Turkish Catastrophe Insurance Pool (Institution) in return for a price in conformity with the Agricultural Insurance Pool, up to maximum 10% of the retention margin according to the risk and reinsurance plan of the institution, under the approval of the Minister to whom the Undersecretariat of Treasury reports, and subject to the condition that it is limited to the risk listed in paragraph 2 article 7 of Catastrophe Insurance Law dated 09/05/2012 No: 6305. The Minister is authorized to increase the subject matter amount up to 50%. The type, conditions and limits of the assistance to be provided by the Institution are determined by the Undersecretariat of Treasury in consideration of the principles of insurance. The Institution and the Agricultural Insurance Pool could act in collaboration within the framework of the principles to be determined by the Undersecretariat of Treasury for purposes of meeting the reinsurance requirements."

Within this context, after various meetings and discussions with the executives of the "Agricultural Insurance Pool", the foundation for the interinstitutional reinsurance cooperation for the provision of TRY 236,650,000 reinsurance support to the "Agricultural Insurance Pool" by Turkish Catastrophe Insurance Pool has been laid down. The respective coverage will be limited to the natural disaster risks within the scope of herbal product and greenhouse insurance and shall be activated upon an increase in the loss premium rate in excess of a specific percentage. 43





the adjusters to be assigned are easily identified,





mass assignments are ensured

## THIS PROCESS IS PUT INTO SERVICE WITH THE NEW LOSS SYSTEM.

Section s

## FUND MANAGEMENT

### FUND MANAGEMENT

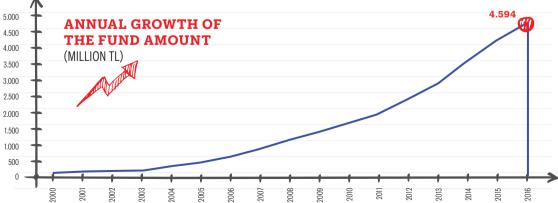
As of 31.12.2016, the tot	al value of TCIP	Years	Portfolio - TL	Deposits	%	Bill/Bond	%	Other	9
Financial Portfolio Value increased from TRY 3.75 billion up to TRY 4.59 billion with an increase of TRY 841.0 billion (growth by 22%) compared to the beginning		2000	5.215.999	1.633.640	31	3.569.688	68	12.671	(
		2001	38.222.985	32.080.730	84	6.030.809	16	111.446	(
		2002	97.331.470	70.079.665	72	26.252.898	27	998.907	
	of the previous year.	2003	116.025.753	63.373.633	55	51.084.849	44	1.567.271	
Fund		2004	202.232.650	80.940.497	40	115.483.686	57	5.808.467	
management	The Institution funds, in 2016,	2005	311.559.315	206.235.410	66	104.244.548	33	1.079.358	
	continued to be managed	2006	499.463.532	409.962.055	82	89.500.583	18	893	
pp.cooch with	in compliance with the	2007	681.508.659	579.947.288	85	98.265.366	14	3.296.005	
thea management approach with ocus on stable ag-term growth	investment principles and	2008	931.934.659	842.084.206	90	84.764.350	9	5.086.103	
	strategies Guide determined	2009	1.186.378.964	944.737.214	80	237.600.393	20	4.041.356	
	by the Board of Directors as	2010	1.433.659.436	1.179.029.211	82	250.382.589	17	4.247.262	
	well as the 25th article of the	2011	1.660.681.919	1.552.648.290	93	96.291.663	6	11.741.967	
	Regulation on the Operating	2012	2.044.378.962	1.893.441.852	93	81.516.910	4	69.420.198	
Principles of Turkish Catastrophe Insurance Pool. The fund size increased by 22% compared to the previous year and reached up to a level of TRY 4,592,652,314 as		2013	2.548.632.255	2.322.418.804	91	183.633.422	7	42.580.029	
		2014	3.092.692.979	2.031.866.840	66	633.645.708	20	427.180.431	
		2015	3.751.625.078	3.077.840.374	82	668.974.812	18	4.809.892	
of 31.12.2016.	a level of TRY 4,092,652,314 as	2016	4.593.502.668	2.025.336.271	54	1.360.355.203	36	1.207.811.194	

Regarding the growth of the return on investment (revenue), the contribution in the general portfolio value compared to the beginning of the previous year has displayed a net increase of TRY +378,9 million (excluding the policy collections). While this indicates a net return of 9.74% as of the beginning of the year, the benchmark return corresponds to 7.94%. (Difference; +2.00%

As of the year end, while 3.95 billion of the TCIP's financial portfolio is managed by TCIP, 0.6 billion of the portfolio is managed by 7 portfolio management companies on behalf of TCIP.

The General Fund Management philosophy of the Institution is based on the following principles:

- As in the previous years, the fundamental elements are primarily the capital safety, and ensuring liquidity and income,
- To achieve steady and permanent growth in fund sizes by remaining loyal to the risk levels determined by accurate information interpretation, correct timing and efficient decision making processes.
- Developing income increasing new products that are appropriate for the Institution's culture and structure as well as the economical conjuncture by adopting an innovative and pioneering approach.



#### **Fund Management Committees**

One of the main tasks of the Investment Steering Committee on the other hand is to take the executive decisions necessary for the implementation of the investment plan based on the developments that took place during the year and advise the Investment Committee that observes and evaluates the investment process and operations weekly.

In order for the growing fund to be managed more efficiently and actively, the "Investment Committee" constituted in 2011 and the "Investment Steering Committee" as a higher echelon body continued their operations in 2016.

The primary responsibility of the Investment Committee is preparing the "Annual Investment Plan", purchasing and selling investment instruments in accordance with the investment plan approved by the Board of Directors and Investment Steering Committee, trading currencies, Participation in the tenders of government debt securities, monitoring the markets pertaining to reverse repos and all similar transactions, holding meetings with other financial Institutions and performing of all operational procedures. The Committee also evaluates the performances of the Technical Operator and portfolio management companies according to the comparative criteria specified in the annual investment plan. Data of the portfolio management companies, comparison criteria amendment requests and strategy changes are evaluated by this committee.

The task of the Investment Steering Committee on the other hand is to take the executive decisions necessary for the implementation of the investment plan based on the developments that took place during the year and to advise the Investment Committee that observes and evaluate the investment process and operations weekly.

#### Investment Strategies Intended to Protect the High Portfolio Value

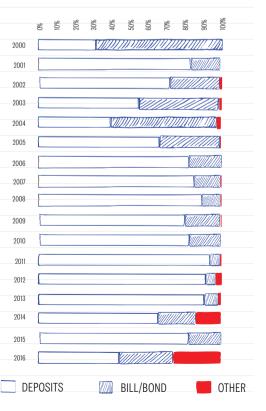
The monetary markets are closely monitored by the Investment Committee, which meets weekly, and it is endeavored by the Committee to earn high returns on investments by creating investment type and term diversities to deploy institution's funds within the acceptable risk limits. Within the scope of the Investment Strategy determined at the beginning of 2016, led by the time deposits as the most liquid instruments according market conditions, the Fund have included government bonds, reverse repos, money market as well as foreign currency time deposits that are proportionate to the liabilities as financial instruments in its portfolio.

#### SAP Treasury Risk Management (TRM) Module Integration in Fund Management

As a switch has been made to SAP system in the accounting processes of TCIP in the year 2015, the integration of SAP-TRM module to the business processes in a harmonious move has also been ensured. This has provided significant savings on time management and detailed and fast means of analysis as well where financial reporting is concerned. In 2016, developments and improvements were prioritized in order to ensure smooth operation of this system.

## Expersoft Infina PM1e Software automation development in Portfolio Management

While the software Expersoft Infina PM1, which has been used from 2013 for financial transactions data flow from TCIP to SAP as well as performance calculation, continues to improve, the new version provided significant progress on the reporting side.



A tablet software was developed in parallel with AYS software development and in full integration

will be used to ensure online and offline transfer to Disaster management System software of loss assessment from all around Turkey by adjusters in the management of all loss process of TCIP.



Section 6

## LOSS MANAGEMENT

## LOSS MANAGEMENT

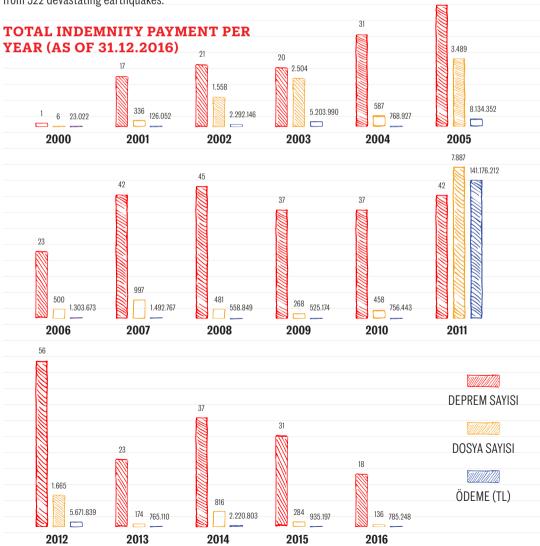
Since its establishment TCIP has realized in total TRY 172,739,804 of loss claim payments regarding 522 earthquakes that took place since then. 2016 has been a calmer year in terms of claim operations, priority was given to TCIP's Catastrophe Management Project and Reporting Project to which transition was completed within this period.

The total amount of loss claims paid was TRY 172,739,804 for a total of 22146 files opened from 522 devastating earthquakes.

#### 01.01.2016 -31.12.2016

- » Total number of claim notifications: 492
- Number of finalized files: 417
- » Number of files settled: 136
- » Amount of claims paid: TRY 785,248

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TURKISH CATASTROPHE INSURANCE POOL (TCIP) 2016 ANNUAL REPORT

In 2016, no earthquake leading to human casualties or causing damage was suffered. A total of TRY 785,248 has been paid for 136 loss files pertaining to 18 earthquakes that caused damages all around the country.

#### **ADJUSTER RESOURCE**

Loss assessments are still carried out by insurance adjusters operating in the insurance industry and holding a license in the fields of fire, natural disaster and theft" and "Engineering".

Particularly in the first region which covers Istanbul, if a large-scale earthquake occurs, the number of insurance adjusters is highly important in order to ensure that loss assessment operations are quickly and efficiently handled.

Starting from Van earthquake suffered in 2011, it is intended to make sure that as many insurance adjusters as possible take part in the earthquake losses. From start to 31.12.2016, it was ensured that 300 adjusters take part in earthquake losses and experience the post-earthquake environment.

However, under the scope of the Disaster Management Project, efforts are used to increase the source of backup loss assessments due to the concern that current adjusters may not cover the need in the case of a possible large-scale earthquake.

Therefore, it is necessary for the Institution to make planning both with regard to the number and knowledge level of the loss adjusters to meet the level of loss according to possible earthquake scenarios.

With consideration that high number of loss assessment operations which may occur in such an extraordinary situation may only be handled with joint projects developed in coordination with other institutions, the Institution determined that, in addition to current insurance adjusters, construction engineers and architects at local administrations may also be considered as a source to refer for loss assessments. As the dimension of the loss increases and as the possibility that there may be structural damage, because of the increasing need for civil engineers, activities were initiated on training programs in coordination with various public organizations and universities in order to create alternative resources.

Mobile devices will be employed and fast online data flow from the site to the headquarters will be achieved in the loss assessment and adjustment processes.

A tablet software was developed in parallel with AYS software development and in full integration, which will be used to ensure online and offline transfer to Disaster management System software of loss assessment from all around Turkey by

Q 522 Earthquakes & 172 Million TL Claim Payments as of 31.12.2016

adjusters in the management of all loss process of TCIP. The said tablet software is designed to be compatible with common Android and iOS systems widely used in the market.

AYS Loss Software is designed to ensure systematic management of the entire loss lifecycle, and is a system which allows to open collective loss files, assign adjusters collectively, provide the insured with their indemnity payments as quick as possible and to ensure that all processes are automated. Another improvement introduced by the application is the Mobile Loss Assessment Application which runs directly in connection with the Loss Software.

This application helps complete the loss assessment quickly and transfer the loss assessment data directly to the loss software. The assessments completed using the Mobile Loss Assessment app consist two main stages:

**1. Building Damage Assessment (Categorization)** the categorization method developed in collaboration with university academicians to ascertain the structural damage to the building's loading bearing system as a result of the Earthquake allows to ascertain to what extent the load-bearing system is damaged due to the earthquake.

#### 2. Standard Costing

Adjuster training sessions will be held as part of 2017 action plan in order to ensure that Mobile Loss Assessment App is widely used.

This practice which is intended to ensure the standardization of loss assessment ensures that loss unit costs are identified per incident and taken under control and the assessments are directly entered to the mobile software without dependency on paper and data is directly and instantly created in the loss application with data transfer in an appropriate environment.

In this context, a group of 10 adjusters were introduced to and informed about the Mobile Loss Assessment app during February 10 / April 06, 2016, and field practices were started with these adjusters.

Our Institution plans in the following period to ensure that loss assessment operation is handled only through mobile device under the scope of Natural Disaster Management System project. In this framework, adjuster training sessions will be held as part of 2017 action plan in order to ensure that Mobile Loss Assessment App is widely used.

#### NATURAL DISASTER MANAGEMENT SYTEM

SAP Natural Disaster Management System for which the development activities were started in 2014 has been put into use as of 2016, thus allowing the automation of loss operations and speeding up the operational tasks.

AYS has been desired to ensure systematic management of the entire loss process and it is a system which is capable of opening mass loss files and of receiving reports from different channels, allows automatic assignment of mass adjusters to loss files and the management of the same, processing large quantity of loss files effectively and indemnity payments are quickly and correctly made to the insured.

With the experiences from Van earthquake in terms of loss management, it has become apparent that a more professional infrastructure is necessary to manage the loss operation of a catastrophic dimension after a large-scale earthquake. While AYS project was initiated with a lesson taken in the aftermath of a large-scale earthquake, this project is intended to establish a system which allows not only for the management of the worst scenario, but also for the management of daily tasks and activities of the Institution.

Development of new methods and models with AYS, operational management of high number of loss operations as may arise in the aftermath of a catastrophic earthquake, management of aftershocks, standardization in loss assessment, cost management, mobile payment infrastructure, mobile site and loss management functions and ability to manage natural disasters are targeted and improvements were made. Under the scope, the priority improvements made with AYS are described below.

In the event of a large-scale earthquake, the receipt of notifications only via calls with customer representatives in cities with high penetration rate will delay the time of going to the field, extend the duration of assessment and therefore will lead to lack of effectiveness and challenges in the operation management. For these reasons, thanks to AYS, it will not be necessary to wait for the notifications within the area of influence of the earthquake, mass loss files will be opened and adjusters will be referred to the insured. Also, an infrastructure has been prepared which will allow the insured to submit notifications simply by sending an SMS, via the Institution's website and via interactive voice response without the need to talk to the operator and to ensure that their loss files are opened. In addition, the insured will also be able to get information about the opened loss files via the Institution's website and the interactive voice response system.

The assignment to the mass opened files of adjusters following the receipt of notifications or via the system constitutes another problem. With AYS, a system has been designed and put into practice which allows to easily identify the adjusters to be assigned, to learn their availability via SMS, and to ensure mass assignments.

Another improvement to AYS is the Mobile Loss Assessment Application which works directly in connection with the loss software. This application helps complete the loss assessment quickly and transfer the loss assessment data directly to the loss software. The assessments via Mobile Loss Assessment have two basic stages, being building damage assessment and standard costing.

#### **Building Damage Assessment (Categorization):**

The methodology used to determine the structural damage to the building's load-bearing system has been designed by university faculty members. Damage categorization methodology developed has been scientifically proven, calibrated and checked with similar methods. This methodology helps quickly and correctly determine the extent of the damage the earthquake caused to the building load-bearing system. If the loss is below a certain level, it is proceeded with determining the decorative damage caused by the earthquake both to common and independent section of the building.

#### **Standard Costing:**

The activities for the standardization of loss assessment are intended to ensure that the loss assessment process is more transparent, standard and easily understandable by the insured, the people with no insurance background or training can also be used as a resource of loss assessment after a short period of training, and independent from the personal evaluation differences, a fair and standardized loss assessment can be performed, loss unit costs can be identified per incident, and taken under control, the assessments can be directly processed to the mobile software with no dependency on papers and the data can be directly and correctly created in the loss application with the data transfer in the right environment, and the performance of these functions on Loss Assessment App is made possible via the standard costing software. The standard costing application by which the unit costs can be centrally adjusted with reference to the region, building structural features etc. allows to calculate the payment for the loss in a standardized manner and to create adjuster reports.

As part of SAP software, a loss file inquiry screen has been developed as part of the SAP software through which the insured can submit claim notifications via the Institution's website dask.gov.tr and follow up the status of the loss file. Another improvement to AYS which works directly in connection with the loss software.

## MOBILE LOSS ASSESSMENT APPLICATION

### 

It is enabled that Adjusters can perform the loss assessments using the Mobile Loss Assessment app, and completion of the assessment process directly during the loss assessment and assessment details are directly transferred to the loss application for review, and received by the Loss investigation teams.

> This application helps perform the loss assessments in a fast and quick manner without adjuster difference.

Section 7

# TICP INFORMATION TECHNOLOGIES AND DATA MANAGEMENT STRATEGY

### TICP INFORMATION TECHNOLOGIES AND DATA MANAGEMENT STRATEGY

#### 7.1 SBM, THE DIRECTORATE OF EXTERNAL INSTITUTIONS

IT Assets and processes of TCIP have been managed by SBM as of 2015. The TCIP Unit established at SBM in 2015 has been positioned under the SBM Directorate of External Institutions in 2016. The relevant unit provides support to TCIP's entire software lifecycle processes, daily-periodic and periodic workflows, ensuring coordination within SBM, vendor management, following up the contract management, project management, technical support process, satisfaction of the needs from insurance companies and the addressing of the problems.

The small and large scale projects unveiled in 2016 are detailed below.

#### 7.1.1 2016 TCIP TARIFF CHANGE PROJECT

As part of the Tariff Change Project put into production on March 31, 2016, changes were introduced to CEI Minimum Premium Amount and Commission Ratio in **CEI** Renewal Policies. As part of CEI Minimum Premium Amount change, pursuant to the DASK Tariff Changes published in the official gazette by the Undersecretariat of Treasury, the current minimum premium amount applicable to the Compulsory Earthquake Insurance Policies will be priced according to earthquake risk regions from TRY 25 regardless of the earthquake region and building type. As part of the Commission Rate changes in CEI Renewals, pursuant to the TCIP Tariff Changes published in the official gazette by the Undersecretariat of Treasury, the minimum commissions payable to insurance companies for Istanbul and out of Istanbul will be increased in Compulsory Earthquake Insurance policies

#### 7.1.2 ESTABLISHMENT OF PREPROD ENVIRONMENT

In 2016, TCIP Preprod environment was developed and put into service. TCIP Preprod environment was shared with all companies at which this environment was established and started to be used actively. Preprod environment was included in the TCIP SDLC processes and the final tests prior to the production are conducted via TCIP preprod environment.

#### 7.1.3 TCIP WEB PORTAL

A new platform was created by which the Insured can submit Notice of Claims via the TCIP website and inquire their Losses. TCIP Web Portal is running in integration with SAP, and with the new updates in 2016, it was made ready for use and is planned to be put into service in the first month of 2017.

#### 7.1.4 NVI COMBINED FILE INQUIRY

It was stated in the announcement dated 10.11.2016 that "Inquiry of Persons with Blue Card using the ID Number", "Inquiry of Person Data via Turkish ID Number" and "Inquiry of Foreign Persons via Foreign ID Number" services as well as the services which can be used to verify the last valuable document info and to verify persons were combined under one single service under the name of "Combined File Inquiry with ID Number" and that these services will no longer be used after 31.01.2017. Under the scope of the changes introduced, the activities intended to change Turkish ID Number and Foreign ID number services utilized by TCIP with the service Combined File Inquiry with ID Number were initiated in 2016, and will be put into service in the first year of 2017.

#### 7.1.5 7.1.5 UPDATE OF TCIP TEST ENVIRONMENT WEBSITES

In 2016, TCIP Company Test environment which was not updated for years and the new TCIP Preprod environment website contents were made the same with the content of TCIP production environment websites.

#### 7.1.6 PM1 TEST ENVIRONMENT ESTABLISHMENT

A new test environment was established for TCIP Portfolio Management system PM1, and was put into use. Also, PM1 was included in the TCIP natural disaster management.

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#### 7.1.7 OBI REPORTS

New consolidated reports which are Loss Cumulative Report, Loss Cumulative Summary Report, Adjuster Fee Report, Adjuster Fee Summary Report, Detailed Legal Reports were prepared in the Oracle Business Intelligence (OBI) environment and these reports are used to compare data in the new loss system and the data in the production system and to track based on the same report. And in the third phase which will be initiated after the completion of the detailed AYS integration, summary and visual reporting will be possible with dashboards intended for decision taking, which is another feature of the business intelligence layer.

#### SAP ALV REPORTS

In order for all operational transactions via SAP could be reported, Adjuster Fee Report, Payment Report, Payment Detail Reports were created in 2016 and in 2017 it will be continued to improve these reports based on the new developments to the SAP system.

#### 7.1.8 TCIP CALL CENTER PROJECT

Job description and agreement preparations are being made with due consideration of huge demand from the insured which may need to use the Compulsory Earthquake Insurance (CEI) system in the case of a large-scale earthquake. In this sense, it is intended to use external resources for front desk, establish required collaborations and establish the entire infrastructure in order to cover the need for information and the need to submit notifications by connecting to Customer Representatives from the Customer Line ("125"). The relevant project was initiated in 2016 and is planned to go live in 2017.

#### 7.1.9 TCIP DIGITAL ARCHIVE PROJECT

DASK Dijital DASK Digital Archive Project is intended to create a safe and common institutional memory, collect documents in a common data store and achieve saving in costs such as communication, human resources etc. With this project, 30.000 loss files of TCIP which are currently stored physically and all files, official correspondences and documentation which the institution may have in the future will be transferred to the digital archive system. The relevant project was initiated in 2016 and is planned to go live in 2017.

#### 7.1.10 WORK FLOWS

In addition to the projects developed and monitored by SBM TCIP Unit, a process has been created to cover the daily task needs, and periodic tasks and instant responses are monitored within this process. As part of daily processes, TCIP Batches are controlled and responded in the case of any problem. All questions and problems submitted by insurance companies via SBM Jira are replied within the day. Instant response is made to every problem which may interrupt the daily work flow.

Among the periodic work flows are the updating of TCIP website, provision of end-of-month SAP FI reconciliation data, creation of the list of pledged debts shared with banks every 3 months and preparation of software source codes every 6 months.

Among the period needs are the response to report requests received from different units of TCIP or other institutions and identification of new needs, and inclusion in the SDLC process.



#### 7.1.11 TRANSFER OF TCIP MAIN SYSTEM DATABASE TO BACK-UP STRUCTURE

Active-passive model of TCIP main system databases and active-active model from Veritas back-up architecture and Oracle RAC (Real Application Cluster) architecture transformation was achieved. Within the first two months following the transformation, replication of the previous databases was finalized and the servers were closed. This way;

- Possible system interruption risks were minimized by transition to active-active model.
- Using the Oracle back-up architecture, the current SBM capabilities are allowed to be used for TCIP systems, support has been sought from Oracle which has an existing work environment and transition was made to a productive maintenance-repair model.
- Performance and backup improvements intended for the database solutions were put into service.

#### 7.1.12 CREATION OF TCIP SYSTEMS ENVIRONMENT

As part of the life cycle processes of optimum software development, this is the project covering the activation of STABLE (Test environment), ODM (Emergency Center) and PREPROD (Pre production environment) environments and ensuring the updating of PREPROD environment on a monthly basis. This way;

- Environments are created which are aligned with
- the quality standards, can be monitored, measured and managed,
- An increase was observed on the quality of developed software and database objects,
- » With the improvements in the dissemination
- processes, savings have been achieved in various derivative resources,
- An information system continuity architecture was unveiled, supporting business continuity in the case
- of possible disasters.



### Planned Works

#### 7.1.13 TCIP DATABASE INFORMATION SECURITY ACTIVITIES

In order to promote auditability and transparency, audit agents were installed to the databases identified by the information security and database teams in order to ensure that operations on TCIP database systems can be monitored and proactive measures can be adopted to prevent unauthorized access, and it is ensured that the auditing data can be centrally managed, monitored and reported.

#### 7.1.14 TCIP ARYS DATABASE ACTIVITIES

Regarding the current situation, there is a non-licensed database active on the physical hardware before transfer to SBM for use as part of TCIP ARYS project which potentially created high license cost. (Around US\$ 900,000)

A new database was established on SBM virtual database track, the database in physical environment was carried to virtual environment and PREARYS database was established in order to make sure that systems can be developed on the same track and opened for use by developers.

#### 7.1.15 ACTIVITIES FOR WINTER TIME PRACTICE

As part of compliance with the winter time practice which was amended under a law, batching operations were undertaken on all servers, databases, operating systems and java running environment.

#### 7.1.16 PERFORMANCE PROBLEM TUNING IN TCIP MASS OPERATION PROGRAMS

It has been identified that the program routines which carry out the policy renewals in a batch can be completed within such timeframes up to 10 hours in parallel with the increase in the size of data, the said program routines were examined and tuned and the work time of batch operations are decreased down to 10 minutes.

#### 7.1.17 FIRMWARE UPDATES FOR TCIP PHYSICAL SERVERS

In order to solve slowness and disk usage problems on the physical servers, firmware updates were made on all relevant servers.

#### 7.1.18 ODM and BACKUP ACTIVITIES

ODM installations of the loss software being used at TCIP were completed, activated and tests were completed mutually with the PRODUCTION environment. Also, daily and weekly backups of all virtual servers were scheduled and automation was ensured.

#### 7.1.19 ENSURING THAT TCIP SYSTEMS ARE MONITORED

Via Op Manager, all servers are enabled to be monitored 24 hours 7 days, database and app servers are enabled to be monitored via PRTG tool. Also, required configurations are enabled on Monitive and Pingdom tools in order to ensure monitoring online services and websites.

#### 7.1.7.1.20 APP SERVER UPDATING

Oracle WebLogic app servers are updated at the level of WebLogic, operating system and Java running environment, also enabled to increase their support level with up-to-date versions and performance improvements were actualized.

## 7.1.21 GENERAL INFORMATION SECURITY ACTIVITIES

The following activities were completed as part of general information security activities;

- All updates published by Microsoft and implemented on the servers were completed.
- » Regular internal and external penetration tests were completed for all TCIP systems.
- Penetration tests for application servers, applications and services were completed.
- Vulnerability scan for all servers was completed via internal channel.
- Collection of security logs of all operating systems and central monitoring from a single point was enabled.
- User and system accesses were reviewed (Active directory, databases, servers, app servers, security
- walls and remote access via VPN).

#### 7.2 SUPPLIER AND SUPPORT MANAGEMENT

There are many systems belonging to TCIP and all systems are developed by different vendors. As all of the infrastructures belonging to TCIP systems are on the side of SBM, the relationship with vendors and relations between SBM business units, ensuring communication between vendors for integrated systems, ensuring communication between TCIP and vendor if necessary are all handled by SBM TCIP unit.

The identification of the solution for problems resulting from integrations in different systems, ensuring required coordination for response after identification of the solution are conducted both within SBM and among vendors.

Required support is provided for requests for information received from insurance companies, the xml and error checks submitted, solution, provision of test data and update. Likewise, solution support is provided by SBM TCIP unit for the questions and problems received from TCIP.

#### **7.3 PROJECT MANAGEMENT**

As TCIP projects are handled using multiple vendors, it is highly important to create the right project management system. From the start to the closure of a project, the gathering of all parties involved, the monitoring of the items expected from the parties after the meeting, monitoring the stage of the project, monitoring the task items within the project life cycle are controlled by SBM TCIP Unit.

#### 7.4 PROCUREMENT AND CONTRACT MANAGEMENT

Under the scope of performing the services specified by the Turkish Prime Ministry Undersecretariat of Treasury, a protocol has been signed between Insurance Information and Monitoring Center (SBM) and Turkish Catastrophe Insurance Pool (TCIP). This protocol regulates the transfer of TCIP's Information Technology assets to SBM and the transfer to SBM of the power, management and responsibility of IT services to be provided for TCIP. Under the scope of this protocol, procurement and contract management activities relating to IT services will be performed by SBM.

As of July 2015 when the service was launched, the procurement and contract management matters until the end of 2016 are handled within the activity report.

Within the first six months of 2015, SBM procurement and contract management realized a total of 17 activities in the name of TCIP, being 10 procurement, 6 vendor contract and 1 non-disclosure agreement.

The number of activities in 2016 increased by 68% compared to 2015.

Insurance Information and Monitoring Center (SBM) undertook a total of 74 procurement activities in the name of TCIP in 2015 and 2016. Under the scope of Natural Disaster Management System project

Our Institution plans in the following period to ensure that loss assessment operation is handled only through mobile devices

## IN ORDER TO ENSURE THAT MOBILE LOSS ASSESSMENT APP IS WIDELY USED

adjuster training sessions will be held as part of 2017 action plan

Section 8

# CATASTROPHE MANAGEMENT SYSTEM AND PROJECTS

### CATASTROPHE MANAGEMENT SYSTEM AND PROJECTS

#### 8.1 NATURAL DISASTER MANAGEMENT SYSTEM

TCIP put the Disaster Management System into operation in 2015 and this was started to be used actively as of 2016, which was positioned in 2014 in place of damage system in use and which constitute a reference for the Disaster Management System. As such the most important phase of loss management software

Catastrophe Management System which will set a reference for the world in terms of disaster management was started to be used actively as of 2016.

that served in an effective manner in all postearthquakes – from minor to major – compatible with future needs besides its policy generating service that simultaneously operates in integration with various public institutions and is used by 31 insurance companies and 16,000 agencies and serves over 7 million insured.

AYS loss software is a system which is designed

end-to-end for the systematic management of the entire loss life cycle, which, while it can create mass loss files, allows for receiving notifications from different channels, where assignment of adjusters to loss files and management are automatically handled, large quantities of loss files are processed effectively and which further allows indemnification payments are quickly and correctly made to the insured.

Though no large-scale earthquake was suffered in 2016 in our country, the claim notifications resulting from the small earthquakes suffered throughout the year, assessment and payment operations are performed via Natural Disaster Management System;

- » Development of new methods and models
- » Operational management in catastrophic quantity
- Management of aftershocks

- » Standardization in loss assessment
- Cost management
- » Mobile payment infrastructure
- Mobile site and loss management

functions are started to be tested even partially with the use of the system in the daily life.

Loss management processes are handled via AYS in the following manner.

#### 8.1.1 Receipt of Claim Notifications

Notification and the opening of the file is considered as one of the challenges particularly in largescale damages. Especially in large cities with high penetration rate, the receipt of claim notifications only via Alo 125 Call Center will delay the time to go to the field, it will also delay the assessment process, leading to loss of productivity and challenges in the operational management.

In line with the foregoing consideration, for large scale earthquakes, the claim notifications will, in addition to Call Centers, be able to be received from the insured via SMS service, TCIP web site (web portal or via call center interactive response system without the need to talk to an operator.

Thanks to AYS, sending the claim file numbers to the Insured via SMS after the creation of the claim files, and the insured are now able to track the process through TCIP website and interactive voice response.

Additionally, anticipating that such additional methods may not even be enough in the event of big catastrophe, and a structure has been developed by which batch loss files will be opened by region without waiting to receive notifications and adjusters will be sent to the insured.

#### 8.1.2 Adjuster Assignment

As mentioned in the previous sections, another challenge is the assignment of adjusters for batch loss

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files by the system or as a result of the notifications received from different channels such as TCIP web site, interactive voice response and SMS etc.

In this context, a process has been designed by which the adjusters to be assigned are easily identified, their availability is confirmed via SMS and mass assignments are ensured and this process is put into service with the new loss system. Not only the Adjuster Assignment but also the ability to handle management and tracking processes with adjusters in electronic environment is an important step for effective and quick investigation and finalization of the loss file and correct payment of the indemnities.

#### 8.1.3 Mobile Loss Assessment Application

Another improvement to AYS is the Mobile Loss Assessment Application which works directly in connection with the loss software. It is enabled that Adjusters can perform the loss assessments using the Mobile Loss Assessment app, and completion of the assessment process directly during the loss assessment and assessment details are directly transferred to the loss application for review, and received by the Loss investigation teams. This application helps perform the loss assessments in a fast and quick manner without adjuster difference.

The standard cost structure of the Mobile Loss Assessment consists of two basic stages:

#### 8.1.3.1 Building Loss Status Assessment (Categorization)

The methodology used to determine the structural damage to the building's load-bearing system has been designed by university faculty members. Damage categorization methodology developed has been scientifically proven, calibrated and checked with similar methods. This methodology helps quickly and correctly determine the extent of the damage the earthquake caused to the building load-bearing system. If the loss is below a certain level, it is proceeded with determining the decorative damage caused by the earthquake both to common and independent section of the building.

#### 8.1.3.2 Standard Costing

Together with the standardization of loss assessment the following functions are intended;

- Making the loss assessment process more transparent, standard and easily understandable before the insured,
- Possibility of using people without any insurance background or training as a source in loss assessment after a short period of training,
- Ability carry out equitable and standard loss assessment process free of any individual assessment differences,
- Determination and control of loss unit costs on incident basis,
- The function that the assessments are directly entered to the mobile software without dependency on paper and data is directly and instantly created in the loss application with data transfer in an appropriate environment,

and the performance of these functions on Mobile Loss Assessment App was made possible with the Standard Costing software. The standard costing application by which the unit costs can be centrally adjusted with reference to the region, building structural features etc. allows to calculate the payment for the loss in a standardized manner and to create adjuster reports.

#### 8.2 NATURAL DISASTER RISK MANAGEMENT SYSTEM (ARYS)

ARYS is a structure where maps, images and data obtained from different sources are combined and correlated and converted into information by using Geographical Information Systems technology.

The first phase of ARYS has been developed in Istanbul, where data pertaining to the purpose of the project is easily obtainable and the number of CEI policies are the highest, and furthermore where a destructive earthquake is expected. The system will be developed in a manner to cover Turkey in general by benefiting from the True Orthophoto Project outputs in the forthcoming process. The first phase of ARYS has been developed in Istanbul, where data pertaining to the purpose of the project is easily obtainable and the number of CEI policies are the highest, and furthermore where a destructive earthquake is expected. While the system is being made common so that it will cover Turkey by making use of the True Ortophoto Project, General Directorate of Civil Registration and Nationality MAKS (Location-Based Address Database) project outputs will be integrated to the system, making it possible that the targeted results can be achieved more accurately.

In 2016, with the Loss Module application, the second phase agreement of the software which also includes the integration of ARYS system was signed and development activities were started. Following the completion of the software and integration in 2017, it will be possible to transmit the data simultaneously between the two system.

While in this way the affect of an earthquake on the portfolio can be calculated in a short period of time, the operations such as comparing the satellite images and aerial photos before and after the earthquake, and opening mass files can also be directed from here and identification of operational priorities and adjuster assignment organization will be supported from this system.

#### **8.2.1 Variation Detection and Loss Assessment**

Another module, whose design and integration on ARYS system has been completed, is the Variation Detection module. With this model it is possible to determine buildings that have suffered disaster loss by comparing aerial and satellite photos, to be obtained immediately after a probable earthquake that has a destructive effect, with those obtained previously. Thanks to the integration of analysis outputs obtained from Variation Detection module with coordinated UAVT (National Address Database), loss distribution and especially damaged buildings observed from satellite and aerial photos will be automatically associated with the TCIP portfolio, and it has become possible to determine from among these: those that have extensive damages such as collapse, demolished, tumbled, and slanted buildings with policies and housing residents, and to

use the findings obtained in the operations of "Loss Assessment" process.

In conclusion, it has become possible to design a work flow automation that will increase the efficiency of post-earthquake TCIP loss management operations within the scope of the project by establishing effectively which addresses the determined damages correspond to and regions the real damage intensity has affected. Moreover it will be possible for the system to also provide data and support in many processes such as calculating the outstanding effects of probable earthquake scenarios.

It will be possible to enable effective use of adjuster workforce in the aftermath of a probable major earthquake with area detection application, which is another module developed separately on ARYS system, by using the loss distribution information oriented to an earthquake that occurs and obtained in conclusion to the calculation and image analysis, and neighborhoods that are most affected by the earthquake and may be assessed as top priority by TCIP will be established as a decision support factor.

#### 8.2.2 Financial Loss Estimate and Operational Decision Mechanism

By using earthquake earth movement parameters, building loss distribution and the policy inventory with appointed geographic coordinates belonging to earthquake scenarios or real time earthquakes it is intended to estimate the financial losses that could be incurred in case of an earthquake, which carries great importance in terms of identifying the financial dimensions of an earthquake.

By means of the Loss Assessment Software, the estimation of the financial losses, the examination of the dimensions of the financial obligations and development of the operational strategies within the scope of insurance industry will be possible. By using the earthquake earth movement parameters, building loss distribution and the policy inventory with appointed geographic coordinates within the scope of the operational strategies indicated, information that is defined and needed within the scope of capacity optimization on the number of loss adjusters required to be assigned to each region for "Loss Assessment" before and after an earthquake, and the follow up and management of this team at the field can be obtained.

All these processes were made possible thanks to ARYS software developed on the base of Geography Information Systems. The systems are targeted to operate in parallel following the integration of ARYS software being completed with the AYS Losss Software, which has gone live.

#### **8.3 TRUE ORTOPHOTO PROJECT**

True Orthophoto Project contract, conducted under the Technical Coordination of Geographical Information System of the Ministry of Environment and Urban Planning, was signed in June of 2014 and works were initiated in July of 2014. As of 31.12.2016, while production of True Orthophotos are being realized at a scale of 1/1,000 in settlement areas (province/district/ township) throughout Turkey, current building inventory will also be determined in urban areas.

Orthophotos to be produced will also provide one of the base maps that will have an important place within the loss support system of TCIP besides forming the basic image base of all units, whose geographical data generation are being realized. The ground, building inventory information layers of the TCIP policy data that will be combined on the Ortophoto images, and in consequence of the works to be performed with probable earthquake scenarios, estimates will be possible for the damage potential of the portfolio as well as for various needs such as anticipated number of loss adjusters. Besides the estimates, it will be possible to calculate highly approximately the loss status of the portfolio in a short while according to the location and severity of an earthquake in case any earthquake occurs.

In addition to being an innovation in Turkey with regards to scope, cost, time, and technology used, True Orthophoto Project is also one of the outstanding projects in the world.

#### 8.4 TITLE DEED LOSS INTEGRATION

In the first phase, while Compulsory Earthquake Insurance controls are being performed in a more systematic manner during title deed processes in coordination we established between our Institution and the General Directorate of Land Registry and Cadastre we initiated in 2013, certain works have also been conducted with the purpose of preventing cancellation of policies that are in violation of the legislation. Thus, in transactions that are performed regarding the immovable at the title deed offices, it has been ensured that the existence/non-existence information for the Compulsory Earthquake Insurance can be displayed and that the control mechanism can operate in a better manner while the operation work load is reduced at the title deed offices.

Following this, this coordination was extended and currently a special structure is being set up where damages concerning the title deed information of the insured will be directly and simultaneously displayed by our unit with the purpose of accessing in the fastest manner to correct information in order to reduce the procurement of documents from the insured during the loss processes in case of a major disaster.

#### **8.5 URBAN TRANSFORMATION**

A new infrastructure was set up in 2015 by which risky dwellings, assessed within the scope of urban transformation to be demolished, will also be tracked by TCIP and that will avert new policy generation and renewal processes for such dwellings.

Also, in order to make sure that such data can also be used at the loss stage, a separate structure has also be designed by which such data can also be uploaded under the scope of Natural Disaster Management Project and by which required alerts can be received at the stage of loss investigation. In order to allow the automation of loss operations and speeding up the operational tasks:

## SAP NATURAL DISASTER MANAGEMENT SYSTEM HAS BEEN PUT INTO USE

Online integration with Vakifbank was established to make sure that the insured can receive their payments quickly and efficiently.

Thanks to this system, payments are made directly to Turkish ID Number of the relevant person, with the goal to make sure that the loss indemnification can be collected from any branch of Vakıfbank all around Turkey using the password given in the SMS sent to the beneficiary through the system.

Section 9

# ADVERTISING AND PUBLIC RELATIONS ACTIVITIES

## ADVERTISING & PUBLIC RELATIONS ACTIVITIES

#### 9.1 DEVELOPING GENERAL PUBLIC RELATIONS AND ADVERTISING STRATEGIES

Besides developing the insurance awareness, our Institution arranges public relations and publicity projects that support the development in our country of earthquake awareness, safe life, and earthquake resistant buildings concept.

## Communication study that are based on transparency and mutual trust

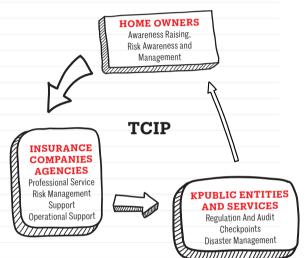
When determining the communication works, TCIP focuses on developing projects to enhance the awareness of earthquake and being prepared for earthquake throughout the country. The Institution reaches out to many different target audiences and primarily to dwelling owners, insurance companies and brokers, primary, secondary and university students, public institutes and local administrations.

Insurance companies and their agencies, which TCIP sees as one of its most important business partners for expanding Compulsory Earthquake Insurance throughout the country, play an important role in the development of service processes prior to and following a disaster. TCIP, which also works very closely with public institutions, is able to reach every part of the country thanks to this.

#### Social media in corporate communication

TCIP, addressing a very wide target audience from different segments of Turkey, also takes steps its presence in the social media besides television, newspaper and similar media in its communication efforts. The Institution, which follows very closely the developments and trends in the social media, is thus able to adapt its communication works to the necessities of the time. It is aimed to achieve for the concept worked on to have 360-degree integrity with respect to communication, advertising, social media, and media purchase. With regard to communication; it is targeted to

- Invest in trust and reputation as an Institution,
  Develop the risk awareness about TCIP, and
- enhance the continuity and to gain new insurance holders.



#### 9.2 STUDIES AND PROJECTS

The study and projects performed may be grouped under the following headings:

#### 1. Projects Aimed to Develop the Risk Perception

- » Cities Compete, Insured Win Contest
- » Earthquake Resistant Building Design Competition
- Red Crescent Organizing of Opinion Leaders (TLT) Project
- Short Film Competition

#### 2. Projects for Trust and Reputation

- » Sponsorships
- » Insured Life Program

#### 3. Projects Developed for Sustaining Existing and **Subscribing Prospect Insurance Holders**

Agency Gift Cheque Campaign

#### Identification of Advertising Agency and **PR** Agency

The Institution's procurement of PR and advertising agency services for the new period has been assessed by the committee created in order to ensure the procurement within the framework of "Procedure for the Procurement of Goods and Services Among Certain Clients".

In each field, as of 31.12.2015, top 10 banks in terms of active size, the top 10 insurance companies with the highest premium generation size and the advertising and PR agencies recently worked with have been invited to the committee.

In line with such criteria, 19 companies were invited to the Committee as Advertising agencies, and 14 agencies as PR agencies. Briefing meetings were held to inform the agencies wishing to attend to the committee about the TCIP, briefing and public opinion polls were shared.

Following the meetings, the agencies submitted their activities to the committee consisting of Undersecretariat of Treasury, General Directorate for Insurance. Insurance Association of Turkey and Institution Managers. With the committee decision and the approval of the Board of Directors, Mariinal Porter Novelli agency has been selected as the PR Agency and Rabarba agency has been selected as the Advertising agency.

Collaboration

of TCIP and Turkish Red

Crescent

#### 9.2.1 Turkey Red Crescent **Organization of Opinion** Leaders (TLT) Project

The project partnership. which started in 2013 with the purpose of explaining

TCIP and the Compulsory Earthquake Insurance to the opinion leaders and their target audience, who participate in the TLT training of the Turkish Red Crescent, also continued in 2016. Organizing Opinion Leaders Project as developed by TCIP and Turkish Red Crescent partnership, as part of the Disaster Damages Mitigation Program, 200 thousand of class calendars of "I Learn Safe Life with the Red Crescent", 5 thousand of Story Book "Adventures of Ayca and Aykız and 10 thousand of Painting Book "Adventures of Ayca and Avkız" were printed for distribution in 2017. The printed books and calendars are planned to be distributed to primary school classes 1, 2, 3 and 4 all around Turkey through the agency of Turkish Red Crescent branches and Provincial / District Directorates of National Education at the beginning of 2017.



#### 9.2.2 Sponsorships

Sponsored Symposiums and Conferences

- The sponsorship for the "Workshop for Turkey » Seismic Danger Map and Turkey Building and Earthquake Regulations" as requested by AFAD (Disaster and Emergency Management Authority) was assessed and the workshop was provided with a support of TRY 100,000 + VAT.
- An amount of €3,600, being the cost for silver sponsorship) was granted to International Congress on Advanced Earthquake Resistant Structures (AERS 2016) to be organized on October 24-28, 2016 by Ondokuz Mayıs University, Engineering Faculty.



TURKISH CATASTROPHE INSURANCE POOL (TCIP) 2016 ANNUAL REPORT

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#### DOĞAL AFET SİGORTALARI KURUMU

**CONVENIENCE TRANSLATION OF** 

FINANCIAL STATEMENTS

#### FOR THE PERIOD 1 JANUARY - 31 DECEMBER 2016

AND

THE INDEPENDENT AUDITOR'S REPORT

(ORIGINALLY ISSUED IN TURKISH)

Section 10

# AUDITOR'S REPORT



# CONVENIENCE TRANSLATION OF INDEPENDENT AUDITOR'S REPORT ORIGINALLY ISSUED IN TURKISH

### To the Board of Directors of Doğal Afet Sigortaları Kurumu,

### **Our Opinion**

In our opinion, the financial statements present fairly, in all material respects, the financial position of Doğal Afet Sigortaları Kurumu ("Turkish Natural Catastrophe Insurance Pool: TCIP" or the "Institution") as at 31 December 2016, and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

### What we have audited

The Institution's financial statements comprise:

- » the balance sheet as at 31 December 2016,
- » the statement of profit or loss and other comprehensive income for the year then ended,
- » the statement of changes in equity for the year then ended,
- » the statement of cash flows for the year then ended and
- » the notes to the financial statements, which include a summary of significant accounting policies.

### **Basis for opinion**

We conducted our audit in accordance with International Standards on Auditing ("ISA"). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## Independence

We are independent of the Institution in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (the "IESBA Code"). We have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

### **Other matter**

The financial statements of the Institution as of 31 December 2015 and for the year then ended were audited by another audit firm whose audit report dated 27 May 2016 expressed an unqualified opinion.

## Responsibilities of management and those charged with governance for the financial statements

Institution management is responsible for the preparation and fair presentation of the financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error. In preparing the financial statements, management is responsible for assessing the Institution's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Institution or to cease operations, or has no realistic alternative but to do so. Those charged with governance are responsible for overseeing the Institution's financial reporting process.

## Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISA will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISA, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- » Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Institution's internal control.
- » Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Institution's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Institution to cease to continue as a going concern.
- » Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

PwC Bağımsız Denetim ve Serbest Muhasebeci Mali Müşavirlik A.Ş.

Talar Gül, SMMM Partner

Istanbul, 16 May 2017

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# DOĞAL AFET SİGORTALARI KURUMU BALANCE SHEET AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

	Note	31 December 2016	31 December 2015
ASSETS			
Current assets			
Cash and cash equivalents	4 and 5	3,204,589,416	3,082,650,068
Available-for-sale financial assets	4 and 6	1,388,937,410	668,974,812
Premium receivables	4 and 7	138,884,167	97,442,128
Deferred commission expense	16	81,383,425	66,719,849
Other current assets	8	150,235,363	155,295,197
Total current assets		4,964,029,781	4,071,082,054
Non-current assets			
Tangible assets, net	9	41,087	2,704
Intangible assets, net	10	36,513,526	31,251,088
Other non-current assets	8	8,006,180	16,195,736
Total non-current assets		44,560,793	47,449,528
Total assets		5,008,590,574	4,118,531,582
LIABILITIES AND NET ASSETS			
Current liabilities			
Short-term trade payables	4 and 11	199,902,767	175,199,366
Unearned premium reserve	12	452,438,159	400,547,045
Outstanding claims provision	4 and 12	10,190,138	12,933,621
Deferred income		990,000	
Total current liabilities		663,521,064	588,680,032
Non-current liabilities			
Long-term borrowings	4 and 11	8,006,180	16,195,736
Total non-current liabilities		8,006,180	16,195,736
Total liabilities		671,527,244	604,875,768
Accumulated earthquake reserve	13	4,360,144,653	3,527,914,697
Items to be classified to profit or loss			
- Available-for-sale financial assets valuation decrease (-)	13	(23,081,323)	(14,258,883)
Total equity		4,337,063,330	3,513,655,814
Total equity and liabilities		5,008,590,574	4,118,531,582

# DOĞAL AFET SİGORTALARI KURUMU STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

	Note	2016	2015
Revenues:			
Earned premiums	14	824,286,284	775,819,591
Total insurance revenue		824,286,284	775,819,591
Expenses:			
Cost of reinsurance coverage	15	(206,949,633)	(216,000,626)
Commission expenses	16	(139,528,579)	(127,835,375)
Incurred claims	17	(4,243,507)	(3,365,525)
Other expenses	7	(1,994,783)	
Total insurance expenses		(352,716,502)	(347,201,526)
Insurance revenue, net		471,569,782	428,618,065
General administrative expenses	18	(19,422,507)	(17,007,001)
Operating income		452,147,275	411,611,064
Financial income, net	19	380,082,681	303,701,117
Profit for the year (Increase in earthquake reserve, net)		832,229,956	715,312,181
Other comprehensive income:			
Items to be classified profit or loss			
Available-for-sale financial assets valuation decreases (-)	13	(8,822,440)	(16,640,832)
Total comprehensive income (Increase in comprehensive earthquake reserve)		823,407,516	698,671,349

# DOĞAL AFET SİGORTALARI KURUMU STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

	Revaluation fund increase/(decrease) of available - for - sale financial assets	Accumulated earthquake reserve (Retained earnings)	Total
1 January 2015	2,381,949	2,812,602,516	2,814,984,465
Available-for-sale financial assets valuation decrease (-) (Note 13)	(16,640,832)		(16,640,832)
Profit for the year (Earthquake reserve increase, net)	-	715,312,181	715,312,181
31 December 2015	(14,258,883)	3,527,914,697	3,513,655,814
1 January 2016	(14,258,883)	3,527,914,697	3,513,655,814
Available-for-sale financial assets valuation decrease (-) (Note 13)	(8,822,440)	-	(8,822,440)
Profit for the year (Earthquake reserve increase, net)	-	832,229,956	832,229,956
31 December 2016	(23,081,323)	4,360,144,653	4,337,063,330

# DOĞAL AFET SİGORTALARI KURUMU STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

	Note	2016	2015
Cash flows from Institution's activities:			
Profit for the year (Earthquake reserve increase, net)		832,229,956	715,312,181
Adjustments for:			
Depreciation and amortisation charges	18	6,156,448	2,462,314
Net income from investments	19	(380,082,681)	(303,701,117)
Provision for premium receivables	7	1,994,783	-
Change in receivables		(43,436,822)	(828,165)
Change in other current assets		13,249,390	(904,849)
Change in insurance reserves and deferred commission expense		34,484,055	9,444,904
Change in short/long term trade payables		17,503,845	(30,082,769)
Net cash (outflow)/inflow related to investment activities		482,098,974	391,702,499
Cash flows from investing activities:			
Interest income and income from marketable securities		372,509,917	266,537,346
Change in available - for - sale financial assets		(731,591,606)	(16,310,145)
Purchases of tangible assets	9	(41,961)	
Purchases of intangible assets	10	(11,415,308)	(19,814,120)
Net cash inflow related to investing activities		(370,538,958)	230,413,081
Net increase in cash and cash equivalents		111,560,016	622,115,580
Foreign exchange profits associated with cash and cash equivalents		2,761,496	883,946
Cash and cash equivalents at the beginning of the year		3,071,021,061	2,448,021,535
Cash and cash equivalents at the end of the year	5	3,185,342,573	3,071,021,061

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# **NOTE 1 - NATURE OF OPERATIONS AND ADMINISTRATION**

Doğal Afet Sigortaları Kurumu ("Turkish Natural Catastrophe Insurance Pool: TCIP" or the "Institution"), was established as a public legal entity in order to provide insurance and to fulfil the other tasks assigned to it under Decree Law No. 587 ("Decree Law") issued by the Council of Ministers and published in the Official Gazette on 27 December 1999. As it is published and became valid in Official Gazette under Law No. 6305 "Afet Sigortaları Kanunu" ("Law") on 18 May 2012, Decree Law was abolished and all the actives and passives and all rights and liabilities of the Institution which was founded with decree law is transferred to found the Institution without any transaction on 18 May 2012. The main operation of the Institution is to provide Compulsory Earthquake Insurance to ensure that owners of the buildings are compensated for their losses that occur as a result of an earthquake. The organization is ruled by six member of the board of directors of Doğal Afet Sigortalar Kurumu who has been working in T.C. Prime Ministry of Turkish Treasury ("Treasury"), Eureko Sigorta, Insurance Association of Turkey, academic member appointed by Higher Education Board, Security Exchange Commission and Ministry of Environment and Urban Planning.

The Institution started policy sales on 27 September 2000.

The execution of technical and operational activities of the Institution is outsourced. Under the provisions of Law No. 6305, administration of the operations of the Institution has been assigned to Eureko Sigorta A.Ş., as the "Institution Administrator", by Treasury through a contract signed on 8 August 2005 for a period of 5 years. After the renewal of tender in July 2010 then August 2015, Eureko Sigorta A.Ş. has been re-assigned as the Institution Administrator for the period between 2015 and 2020 and the related contract was signed on 7 August 2015. The Institution Administrator, based on the principles set out by Treasury and decisions of Board of Directors of the Institution; and on behalf of the Institution, provides day-to-day administrative services with respect to executing technical and operational aspects of all insurance activities of the Institution regarding compulsory earthquake insurance, applying plans for risk transfer and reinsurance, management of resources of the Institution, carrying out the campaigns related to public relations, marketing and education, purchasing of goods and services related to operations of the Institution and bookkeeping services. Institution and funds generated by the Institution are exempt from any kind of taxation.

With the agreement signed on 1 January 2016, the Institution, Tarım Sigortaları Havuz İşletmesi A.Ş. ("TARSİM") has provided reinsurance guaranty for possible claim to the full package and frost risks and premiums written on serum insurance cover. The Institution will return half of the deposit premium collected to the TARSIM if claim has occurred within the agreement period of the contract.

The Institution and its revenues are exempt from all kinds of taxes, duties and fees.

The Institution is not subject to the law numbered 3346 Community Economical Attempts with the law about the auditing of the funds by Türkiye Büyük Millet Meclisi, Court of Accounts Law numbered 6085, Travel Expense Law numbered 6245, Public Financial Management and Control law numbered 5018 and Public Bid Law numbered 4734.

Insurance premium receivables of the Institution are collected in accordance with Law related to the Procedures for the Collection of Public Receivables numbered 6183.

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

Annual financial statements, transactions and expenses of the Institution are audited by Treasury.

### **NOT 2 - BASIS OF PRESENTATION OF FINANCIAL STATEMENTS**

The financial statements of the Institution at 31 December 2016 have been prepared in accordance with International Financial Reporting Standards ("IFRS").

The Institution maintains its books of account and prepares its statutory financial statements in Turkish Lira ("TL") in accordance with the Law numbered 6305. These financial statements are based on the statutory records, with adjustments and reclassifications, for the purpose of fair presentation in accordance with IFRS.

The financial statements of the Institution were approved by Can Akın Çağlar, General Manager of Eureko Sigorta A.Ş. which is the technical operator of the Authority, and Semra Aysun Ensari, Finance, Strategic Planning, Facility Management and Purchasing Director on 16 May 2017. Financial statements will be finalized after the approval from the Board of Directors.

#### **Changes in International Financial Reporting Standards:**

#### a) Standards, amendments and interpretations applicable as at 31 December 2016:

- IFRS 14, "Regulatory deferral accounts", effective from annual periods beginning on or after 1 January 2016. IFRS 14, 'Regulatory deferral accounts' permits first-time adopters to continue to recognise amounts related to rate regulation in accordance with their previous GAAP requirements when they adopt IFRS. However, to enhance comparability with entities that already apply IFRS and do not recognise such amounts, the standard requires that the effect of rate regulation must be presented separately from other items.

- Annual improvements 2014, effective from annual periods beginning on or after 1 January 2016. These set of amendments impacts 4 standards.

- » IFRS 5, 'Non-current assets held for sale and discontinued operations' regarding methods of disposal.
- » IFRS 7, 'Financial instruments: Disclosures', (with consequential amendments to
- » IFRS 1 regarding servicing contracts.
- » IAS 19, 'Employee benefits' regarding discount rates.
- » IAS 34, 'Interim financial reporting' regarding disclosure of information.

- Amendment to IFRS 11, 'Joint arrangements' on acquisition of an interest in a joint operation, effective from annual periods beginning on or after 1 January 2016. This amendment adds new guidance on how to account for the acquisition of an interest in a joint operation that constitutes a business. The amendments specify the appropriate accounting treatment for such acquisitions.

- Amendments to IAS 16 'Property, plant and equipment', and IAS 41, 'Agriculture', regarding bearer plants, effective from annual periods beginning on or after 1 January 2016. These amendments change the financial reporting for bearer plants,

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 2 - BASIS OF PRESENTATION OF FINANCIAL STATEMENTS (CONTINUED)

### a) Standards, amendments and interpretations applicable as at 31 December 2016 (Continued)

such as grape vines, rubber trees and oil palms. It has been decided that bearer plants should be accounted for in the same way as property, plant and equipment because their operation is similar to that of manufacturing. Consequently, the amendments include them within the scope of IAS 16, instead of IAS 41. The produce growing on bearer plants will remain within the scope of IAS 41.

- Amendment to IAS 16, 'Property, plant and equipment' and IAS 38, 'Intangible assets', on depreciation and amortisation, effective from annual periods beginning on or after 1 January 2016. In this amendment it has clarified that the use of revenue based methods to calculate the depreciation of an asset is not appropriate because revenue generated by an activity that includes the use of an asset generally reflects factors other than the consumption of the economic benefits embodied in the asset. It is also clarified that revenue is generally presumed to be an inappropriate basis for measuring the consumption of the economic benefits embodied in an intangible asset.

- Amendments to IAS 27, 'Separate financial statements' on the equity method, effective from annual periods beginning on or after 1 January 2016. These amendments allow entities to use the equity method to account for investments in subsidiaries, joint ventures and associates in their separate financial statements.

- Amendment to IFRS 10 'Consolidated financial statements' and IAS 28, 'Investments in associates and joint ventures', effective from annual periods beginning on or after 1 January 2016. These amendments clarify the application of the consolidation exception for investment entities and their subsidiaries.

- Amendment to IAS 1, 'Presentation of financial statements' on the disclosure initiative, effective from annual periods beginning on or after 1 January 2016, these amendments are as part of the IASB initiative to improve presentation and disclosure in financial reports

### b) Standards, amendments and interpretations effective after 1 January 2017:

- Amendments to IAS 7 'Statement of cash flows' on disclosure initiative, effective from annual periods beginning on or after 1 January 2017. These amendments introduce an additional disclosure that will enable users of financial statements to evaluate changes in liabilities arising from financing activities. The amendment is part of the IASB's Disclosure Initiative, which continues to explore how financial statement disclosure can be improved.

- Amendments IAS 12 'Income Taxes', effective from annual periods beginning on or after 1 January 2017. The amendments clarify the accounting for deferred tax where an asset is measured at fair value and that fair value is below the asset's tax base. It also clarify certain other aspects of accounting for deferred tax assets.

- Amendments to IFRS 2, 'Share based payments' on clarifying how to account for certain types of share-based payment transactions, effective from annual periods beginning on or after 1 January 2018. This amendment clarifies the

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 2 - BASIS OF PRESENTATION OF FINANCIAL STATEMENTS (CONTINUED)

#### b) Standards, amendments and interpretations effective after 1 January 2017 (Continued):

measurement basis for cash-settled, share-based payments and the accounting for modifications that change an award from cash-settled to equity-settled. It also introduces an exception to the principles in IFRS 2 that will require an award to be treated as if it was wholly equity-settled, where an employer is obliged to withhold an amount for the employee's tax obligation associated with a share-based payment and pay that amount to the tax authority.

- IFRS 9 'Financial instruments', effective from annual periods beginning on or after

1 January 2018. This standard replaces the guidance in IAS 39. It includes requirements on the classification and measurement of financial assets and liabilities; it also includes an expected credit losses model that replaces the current incurred loss impairment model.

- IFRS 15 'Revenue from contracts with customers', effective from annual periods beginning on or after 1 January 2018. IFRS 15, 'Revenue from contracts with customers' is a converged standard from the IASB and FASB on revenue recognition. The standard will improve the financial reporting of revenue and improve comparability of the top line in financial statements globally.

- Amendment to IFRS 15, 'Revenue from contracts with customers', effective from annual periods beginning on or after 1 January 2018. These amendments comprise clarifications of the guidance on identifying performance obligations, accounting for licences of intellectual property and the principal versus agent assessment (gross versus net revenue presentation). New and amended illustrative examples have been added for each of those areas of guidance. The IASB has also included additional practical expedients related to transition to the new revenue standard.

- IFRS 16 'Leases', effective from annual periods beginning on or after 1 January 2019, This standard replaces the current guidance in IAS 17 and is a far-reaching change in accounting by lessees in particular. Under IAS 17, lessees were required to make a distinction between a finance lease (on balance sheet) and an operating lease (off balance sheet). IFRS 16 now requires lessees to recognise a lease liability reflecting future lease payments and a 'right-of-use asset' for virtually all lease contracts. The IASB has included an optional exemption for certain short-term leases and leases of low-value assets; however, this exemption can only be applied by lessees. For lessors, the accounting stays almost the same. However, as the IASB has updated the guidance on the definition of a lease (as well as the guidance on the combination and separation of contracts), lessors will also be affected by the new standard. At the very least, the new accounting model for lessees is expected to impact negotiations between lessors and lesses. Under IFRS 16, a contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

- Amendments to IFRS 4, 'Insurance contracts' regarding the implementation of IFRS 9, 'Financial instruments', effective from annual periods beginning on or after 1 January 2018. These amendments introduce two approaches: an overlay approach and a deferral approach. The amended standard will:

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 2 - BASIS OF PRESENTATION OF FINANCIAL STATEMENTS (CONTINUED)

#### b) Standards, amendments and interpretations effective after 1 January 2017 (Continued):

- give all companies that issue insurance contracts the option to recognise in other comprehensive income, rather than profit or loss, the volatility that could arise when IFRS 9 is applied before the new insurance contracts standard is issued; and

- give companies whose activities are predominantly connected with insurance an optional temporary exemption from applying IFRS 9 until 2021. The entities that defer the application of IFRS 9 will continue to apply the existing financial instruments standard- IAS 39.

- Amendment to IAS 40, Investment property' relating to transfers of investment property, effective from annual periods beginning on or after 1 January 2018. These amendments clarify that to transfer to, or from, investment properties there must be a change in use. To conclude if a property has changed use there should be an assessment of whether the property meets the definition. This change must be supported by evidence.

- Annual improvements 2014–2016, effective from annual periods beginning on or after 1 January 2018. These amendments impact 3 standards:

- IFRS 1,' First-time adoption of IFRS', regarding the deletion of short-term exemptions for first-time adopters regarding IFRS 7, IAS 19, and IFRS 10 effective 1 January 2018.

- IFRS 12, Disclosure of interests in other entities' regarding clarification of the scope of the standard. These amendments should be applied retrospectively for annual periods beginning on or after 1 January 2017.

- IFRIC 22,' Foreign currency transactions and advance consideration', effective from annual periods beginning on or after 1 January 2018. This IFRIC addresses foreign currency transactions or parts of transactions where there is consideration that is denominated or priced in a foreign currency. The interpretation provides guidance for when a single payment/receipt is made as well as for situations where multiple payments/receipts are made. The guidance aims to reduce diversity in practice

Institution evaluates the effects of IFRS 9 on its financial position and performance. The application of the above standards and interpretations other than the application of IFRS 9 is expected to have no significant effect on the Institution's financial statements in future periods.

# **NOTE 3 - SUMMARY OF SIGNIFICANT RELEVANT ACCOUNTING POLICIES**

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Institution's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in the respective accounting policy disclosures.

## DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 3 - SUMMARY OF SIGNIFICANT RELEVANT ACCOUNTING POLICIES (CONTINUED)

The principle accounting policies applied in the preparation of these financial statements are set out below. These policies have been applied to all the years presented, unless otherwise stated.

#### Premium revenue / Commission expense

Premiums are recognized as income proportionally over the period of coverage of earthquake policies issued on a daily pro-rata basis. The portion of premium revenues that relates to the following period is accounted as the unearned premium reserve for each policy and on a daily basis. The commission expenses incurred in acquiring the unearned portion of premiums are deferred on the same basis as the premiums to which they relate.

#### Cost of reinsurance coverage

The reinsurance agreements entered into by the Institution with reinsurers under which institution is compensated for losses on one or more policies, and that meet the classification requirements for insurance contracts are classified as reinsurance contracts. The cost of reinsurance, mainly consisting of excess of loss premiums, is incurred on an accrual basis.

The excess of loss reinsurance agreements are renewed annually and cover twelve-months-period from November of prior year up to the end of October of the current year. Accordingly, the cost of reinsurance accounted for under the current year include 10-month-portion of the excess of loss premium related to the reinsurance agreement ending October 2016 and 2-month-portion of the excess of loss premium related to the reinsurance agreement ending October 2017. The cost of reinsurance accounted in the current year also includes excess of loss premium adjustment accrued with respect to related reinsurance agreements as well as brokerage fees paid to and incurred for related intermediaries.

The Institution, aims to provide protection against the financial risk which can be caused by a potential earthquake in İstanbul, by exporting USD 400,000,000 catastrophe bond with three-year maturity via Bosphorus 1 RE which was established in 2013, Bermuda. As of May 2016 catastrophe bond that the Institution issued has come to the maturity. As of August 2015 once again the Institution issued USD 100,000,000 amounted catastrophe bond with three-year maturity via Bosphorus Ltd established in Bermuda. For the catastrophic damages because of a potential earthquake in Istanbul expenses for this bond which provides maximum USD 100,000,000 amount of protection are accounted in reinsurance expenses.

#### Claims

The Institution make provision for outstanding claim due to the compensation cost which was accrued and located however not actually paid by the end of the period or if the cost is not calculated the Institution make provision for estimated and incurred but not reported cost. The Institution considered a ratio which calculated considering the last 4 years data of claims for calculation of incurred claims before the year ends incurred but not reported claims and divided this ratio to the incurred claims during the related periods. The Institution calculated the incurred but not reported claims for the period by dividing this ratio to the incurred claims 1 January to 31 December 2016.

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 3 - SUMMARY OF SIGNIFICANT RELEVANT ACCOUNTING POLICIES (CONTINUED)

#### **Property and equipment**

Property and equipment are carried at cost less accumulated depreciation. Depreciation is calculated using the straightline method over their estimated useful life based on the restated cost of such assets. The estimated useful lives of property and equipment are as follows:

The useful life of furniture and fixtures is 4-5 years.

If book value of an asset is more than its estimated recoverable value, book value of that asset is discounted to its recoverable amount. Profit or loss occurred due to disposal of tangible assets are determined by comparing the book value and collected amount and included to the calculation of increase in fund reserve.

Maintenance and reparation expenses are accounted under the current income statement. But the investment expenses for extending the capacity of the tangible assets' future benefits are included in the cost of the tangible assets.

#### **Intangible assets**

Intangible assets consist of the acquired information systems, franchise rights and software. Intangible assets are carried at acquisition cost and amortised by the straight-line method over their estimated useful lives after their acquisition date. If impairment exists, carrying amount of the intangible assets is written down immediately to its recoverable amount. The useful life of intangible assets is 3-5 years.

#### **Financial assets**

The Institution classifies its financial assets as "Available-for-sale financial assets," "Financial assets at fair value through profit or loss" and "Loans and receivables". The classification of the financial assets is decided by the Institution management at initial recognition based on the purpose for which such assets were acquired and reviewed at reporting periods.

#### a) Available- for- sale financial assets

Available-for-sale financial assets are non-derivative financial assets that are either held as available for sale or not classified in any other categories. Investments intended to be held for an indefinite period of time, which may be sold in response to needs for liquidity or changes in interest rates, exchange rates or equity prices, are classified as available-for-sale financial assets.

#### b) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market other than those that the Institution intends to sell in the short term or that it has designated as at fair value through profit or loss or available-for-sale. Receivables arising from insurance contracts are classified in this category and

## DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 3 - SUMMARY OF SIGNIFICANT RELEVANT ACCOUNTING POLICIES (CONTINUED)

are reviewed for impairment as part of the impairment review of loans and receivables. Loans and receivables transferred through their provision for impairment deducted from cost value.

Available - for - sale financial assets accounted with their fair value at first and for the following periods valued by their fair value based upon their market prices. If the underlying fair value of the fair value is not realized within the active market conditions, it is accepted that the fair value is not determined reliably and the "discounted value" calculated in accordance with the effective interest method is considered as fair value. Unrealised gains and losses arising from changes in the fair value of available-for-sale financial assets are accounted in the fair value reserve as a part of equity. When such financial assets are disposed or impaired, the accumulated fair value differences under equity are transferred to the income statement. Interest on available-for-sale financial assets calculated using the effective interest method is recognised in profit or loss.

#### **Foreign currency translation**

Transactions in foreign currencies during the period are translated into Turkish Lira at the exchange rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the Central Bank of Republic of Turkey exchange rates prevailing at the period end. Exchange gains and losses arising from translation of monetary assets and liabilities denominated in foreign currencies are included in the income statement.

#### **Borrowings**

Borrowings are recognised initially at fair value, net of transaction costs. Borrowings are subsequently stated at amortised cost and any difference between the borrowing amount, net of transaction costs, and the balance sheet amount calculated using the effective yield method is recognised in profit or loss.

#### Fair value of financial instruments

Fair value is the amount at which a financial instrument could be exchanged in a current transaction between willing parties, other than in a forced sale or liquidation, and is best evidenced by a quoted market price, if one exists.

The classifications used by the Institution with respect to fair values of its financial assets and liabilities are disclosed below:

- » Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1),
- » Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices) (Level 2),
- Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) (Level 3).

Available-for-sale financial assets and financial assets at fair value through profit or loss included in the balance sheet are the items that are recognised at fair value. Classification requires the utilisation of observable market data, if available.

## DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 3 - SUMMARY OF SIGNIFICANT RELEVANT ACCOUNTING POLICIES (CONTINUED)

The following methods and assumptions were used to estimate the fair value of the financial assets and liabilities for which it is practicable to estimate fair value:

#### Financial assets

The fair values of balances denominated in foreign currencies, which are translated at period end exchange rates, are considered to approximate their carrying values.

The carrying values of certain financial assets, including cash and cash equivalents along with the respective accrued interest are considered to approximate their fair values.

#### Fair value of financial instruments (continued)

The fair values of available-for-sale financial assets and financial assets at fair value through profit or loss are determined by reference to the market values.

The carrying values of premiums receivable are considered to approximate their fair values due to their short-term nature.

#### Financial liabilities

The fair value of bank borrowings for disclosure purposes is estimated by discounting the future contractual cash flows at the current market interest rates that are available to the Institution for similar borrowings.

## **NOTE 4 - MANAGEMENT OF INSURANCE AND FINANCIAL RISK**

#### **Insurance risk**

The Institution issues contracts (insurance policy) that carry insurance risk. This section summarises the risks associated with these contracts and how the Institution manages them.

The risk under insurance contacts is the possibility that the insured event occurs and the uncertainty of the amount of the resulting claim. By the very nature of the insurance contracts, this risk is random and therefore unpredictable.

For a portfolio of insurance contracts where the theory of probability is applied to pricing and provisioning, the principal risk that the Institution faces under its insurance contracts is that the actual claims and benefit payments exceed the carrying amount of insurance liabilities. The Institution management believes that the liability for claims carried at year-end is adequate.

The Institution is granting earthquake coverage to residential buildings. The payment ability of the Institution is limited to its accumulated funds and reinsurance protection that is purchased from the reinsurance market. The catastrophe

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 4 - MANAGEMENT OF INSURANCE AND FINANCIAL RISK (CONTINUED)

model outputs are taken into consideration while setting the top limit and the priorities for the reinsurance protection. The limits are monitored in line with the aggregate developments as per the key zones. Premium amounts are based on predetermined tariffs that vary according to the earthquake zones and types of buildings. The maximum guarantee provided for a residence via Compulsory Earthquake Insurance is TL 160,000 (31 December 2015: TL 150,000). Minimum policy premium is TL 30 (31 December 2015: TL 25) regardless of the type of building and earthquake zone.

The Institution manages such risks through its underwriting strategy and reinsurance protection purchased via excess of loss reinsurance agreement.

#### Insurance risk (continued)

The concentration of insurance risk (maximum insured loss) is summarised below:

	31 December 2016	31 December 2015
Istanbul Region	144,854,908,420	132,092,495,040
Other Regions	430,776,911,145	377,457,466,280
Total	575,631,819,565	509,549,961,320

The concentration of insurance risk in terms of geographical risk zones in Turkey, Zone 1 having the highest earthquake risk, is summarized below:

	31 December 2016	31 December 2015
Zone 1	255,346,254,315	226,192,066,060
Zone 2	147,546,045,430	132,034,127,760
Zone 3	69,574,532,085	61,209,682,080
Zone 4	97,432,076,290	84,996,332,540
Zone 5	5,732,911,445	5,117,752,880
Total	575,631,819,565	509,549,961,320

### **Financial risk factors**

The Institution is exposed to financial risk through its financial assets, financial liabilities (borrowings) and insurance liabilities. In particular, the key financial risk is that the proceeds from its financial assets are not sufficient to fund the obligations arising from its insurance contracts and not covered by the reinsurance agreement. The most important components of the financial risk are market risk (includes interest rate risk and currency risk), credit risk and liquidity risk. The Institution's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise its potential adverse effects on the Institution's financial performance. Risk management is carried out by the Institution Administrator under policies regulated by certain legal arrangements and approved by the Board of Directors.

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 4 - MANAGEMENT OF INSURANCE AND FINANCIAL RISK (CONTINUED)

#### **Financial risk factors (continued)**

Board of Directors considers the liquidity and credibility of the investments in the first place and seeks the maximisation of profitability on investments. The Institution does not use derivative financial instruments to hedge risk exposures.

#### a) Market risk

#### i. Interest rate risk

The Institution is exposed to interest rate risk through the impact of rate changes on interest bearing assets and liabilities. This risk is managed by using natural hedges that arise from balancing interest rate sensitive assets and liabilities.

Available-for-sale financial assets with variable interest rates expose the Institution to interest rate risk. As of December 2016, TL 505,078,468 of available - for - sale financial assets are floating rated assets. As of 31 December 2016, if market interest rates on financial assets with variable interest rates were higher/lower by 1%, with all other variables held constant, as a result of higher/lower interest income on financial assets with variable rates, increase in fund reserve would be higher/lower by TL 15,391,887.

The Institution does not have any other financial assets or liabilities with variable interest rates.

The analysis of contractual repricing dates of financial assets at the balance sheet dates are as follows:

31 December 2016	Up to 3 months	3 months - 1 year	1-5 year	Over 5 years	Not subject to repricing	Total
Available - for - sale financial assets	154,105,525	135,527,917	955,816,363	143,487,605		1,388,937,410
Total	154,105,525	135,527,917	955,816,363	143,487,605	-	1,388,937,410
31 December 2015	Up to 3 months	3 months - 1 year	1 - 5 year	Over 5 years	Not subject to repricing	Total
Available - for - sale financial assets	88,255,647	195,201,289	215,701,425	169,816,451		668,974,812
Total	88,255,647	195,201,289	215,701,425	169,816,451	_	668,974,812

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 4 - MANAGEMENT OF INSURANCE AND FINANCIAL RISK (CONTINUED)

### ii. Foreign currency risk

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The Institution is exposed to foreign exchange rate risk through the impact of rate changes at the translation of Turkish Lira pertaining to foreign currency denominated assets and liabilities. These risks are monitored and limited by the analysis of the foreign currency position (Note 20).

The Institution is exposed to foreign exchange risk primarily with respect to Euro and USD. The foreign currency risk analysis associated with these foreign currencies is as follows:

At 31 December 2016, if TL appreciated/depreciated by 10% against Euro, with all other variables held constant, as a result of foreign exchange gains/losses on the translation of Euro denominated assets and liabilities, equity would be higher/lower by TL 2,179,417 (31 December 2015: TL 2,687,313).

At 31 December 2016, if TL appreciated/depreciated by 10% against USD with all other variables held constant, as a result of foreign exchange losses/gains on the translation of USD denominated assets and liabilities, equity would be lower/higher by TL 2,547,142 (31 December 2015: TL 1,306,113).

#### iii. Price Risk

The Institution's available-for-sale financial assets with fixed interest rate are measured at market value as of 31 December 2016. If market prices increased/decreased by 5%, with all other variables held constant, equity would be higher/lower by TL 69,446,870 (31 December 2015: TL 33,448,741).

#### b) Credit risk

Ownership of financial assets involves the risk that counterparties may be unable to meet the terms of the agreements or will be unable to pay amounts in full when due. The Institution's exposure to credit risk arises mainly from banks deposits, financial assets, premium receivables from insurance companies and reinsurers' share of insurance liabilities.

The assets bearing credit risk are analysed in the tables below using the ratings of rating institutions, namely Standard & Poor's ("S&P"), Moody's and Fitch:

# DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 4 - MANAGEMENT OF INSURANCE AND FINANCIAL RISK (CONTINUED)

i. Bank Deposits

	31 Decem	ıber 2016		31 Decem	ıber 2015	
S&P	TL	FC	Total	TL	FC	Total
В	727,412,645	-	727,412,645	623,396,354	-	623,396,354
Not rated	2,451,044,305	26,132,466	2,477,176,771	2,454,471,488	4,782,226	2,459,253,714
Total	3,178,456,950	26,132,466	3,204,589,416	3,077,867,842	4,782,226	3,082,650,068

Moody's	31 December 2016		31 December 2015				
	TL	FC	Total	TL	FC	Total	
P3	-	-	-	1,165,416,863	4,782,226	1,170,199,089	
NP	1,981,482,970		1,981,482,970	-		-	
Not rated	1,196,973,980	26,132,466	1,223,106,446	1,912,450,979		1,912,450,979	
Total	3,178,456,950	26,132,466	3,204,589,416	3,077,867,842	4,782,226	3,082,650,068	

Fitch	31 Decemi	oer 2016		31 Decemb	er 2015	
	TL	FC	Total	TL	FC	Total
F3	3,178,439,728	26,132,466	3,204,572,194	3,066,234,811	4,782,226	3,071,017,037
В	17,222		17,222		-	
Not rated			-	11,633,031	-	11,633,031
Total	3,178,456,950	26,132,466	3,204,589,416	3,077,867,842	4,782,226	3,082,650,068

ii. Available-for-sale financial assets

31 December 2016	Amount	S&P	Moody's	Fitch
Short term - TL	289,633,442	В	-	-
Long term - TL	1,099,303,968	BB+	Ba1	BB+
Total	1,388,937,410			
31 December 2015	Amount	S&P	Moody's	Fitch
Short term - TL	283,456,936	BBB-	-	-
Long term - TL	385,517,876	BB+	Baa3	BBB-
Total	668,974,812			

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 4 - MANAGEMENT OF INSURANCE AND FINANCIAL RISK (CONTINUED)

iii. Premium receivables

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	31 December 2016	31 December 2015
Premium receivables from insurance companies	140,878,950	97,442,128
Provision for premium receivables	(1,994,783)	
Total	138,884,167	97,442,128

The Institution has premium receivables from the insurance companies operating in Turkey which are subject to capital adequacy requirements of Treasury, main regulatory body regarding operational and financial activities of insurance companies in Turkey. Insurance premium receivables of the Institution are collected in accordance with Law related to the Procedures for the Collection of Public Receivables numbered 6183.

#### iv. Reinsurers' share of insurance liabilities

The Institution has excess of loss reinsurance agreements for the transfer of insurance risk through brokering panel in November 2015- October 2016 (included first 10 month of 2016) under the leadership of Aon Sigorta ve Reasürans Brokerligi A.Ş. and in November 2016 - October 2017 under the leadership of Türker Sigorta ve Reasürans Brokerliği Ltd. Şti.

The above-mentioned reinsurance agreement consists of different layers shared by various reinsurance companies and the reinsurance coverage amounts provided by these reinsurance companies in accordance with terms of the excess of loss reinsurance agreements as of 31 December 2016 and 2015 are as follows:

	EUR Foreign currency amount		TL equivalent	
Limits to reinsurance coverage	31 December 2016	31 December 2015	31 December 2016	31 December 2015
Lower limit	400,000,000	450,000,000	1,483,960,000	1,429,920,000
Upper limit	3,250,000,000	3,250,000,000	12,057,175,000	10,327,200,000

## DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 4 - MANAGEMENT OF INSURANCE AND FINANCIAL RISK (CONTINUED)

iv. Reinsurers' share of insurance liabilities (continued)

The analysis of the credibility of the reinsurance companies with the highest risk shares with respect to the abovementioned excess of loss reinsurance agreement using the ratings of rating institutions, as of 31 December 2016 and 2015 is as follows:

31 December 2016	S&P	Moody's	Fitch
Munich RE	AA-	Aa3	AA
Swiss RE	AA-	Aa3	
Scor RE	AA-	Aa3	AA-
Hannover RE	AA-		
31 December 2015	S&P	Moody's	Fitch
Munich RE	AA-	Aa3	AA
Swiss RE	AA-	Aa3	
Scor RE	AA-	A1	AA-
Hannover RE	AA-		

The Institution, aims to provide protection against the financial risk which can be caused by a potential earthquake in İstanbul, by exporting USD 400,000,000 catastrophe bond with three-year maturity via Bosphorus 1 RE which was established in 2013. As of 3 May 2016 catastrophe bond that the Institution issued has come to the maturity.

The Institution, provided protection against the financial risks that can be arised by a potential earthquake in İstanbul, by exporting USD 100,000,000 catastrophe bond with three-year maturity via Bosphorus Ltd which was established in 2015, Bermuda. In the context of the related bond as of 31 December 2016 the Institution has a total of TL 19,602,433 of catastrophe bond premium payable (Note 11).

### c) Liquidity risk

The Institution uses its available cash resources to pay claims arising from insurance contracts. Liquidity risk is the risk that cash may not be available to pay obligations when due at a reasonable cost. Management sets the limits of the minimum level of funds available to meet such liabilities. Cash outflows due to the borrowing payments are managed by considering the amounts of unreserved cash flow from its operations. Hence, on one hand it is possible to pay debts with the cash generated from operating activities when necessary, and on the other hand, sufficient and reliable sources of high quality borrowings are available.

## DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

## NOTE 4 - MANAGEMENT OF INSURANCE AND FINANCIAL RISK (CONTINUED)

c) Liquidity risk (continued)

The tables below present a maturity analysis for the Institution's financial liabilities, on an undiscounted basis, in accordance with relevant maturity groupings based on the remaining period at the balance sheet dates to the expected or contractual maturity date:

Contractual or expected cash flows						
31 December 2016	Up to 3 months	3 months - 1 year	1 - 5 year	Over 5 years	No Maturity	Total
Liabilities						
Trade payables	97,670,921	102,231,846	8,006,180			207,908,947
Outstanding claims provision (*)		1,176,663	9,013,475			10,190,138
Total	97,670,921	103,408,509	17,019,655	-	-	218,099,085

Contractual or expected cash flows						
31 December 2015	Up to 3 months	3 months - 1 year	1 - 5 year	Over 5 years	No Maturity	Total
Liabilities						
Trade payables	30,586,318	144,613,048	16,195,736			191,395,102
Outstanding claims provision (*)		490,732	12,442,889		-	12,933,621
Total	30,586,318	145,103,780	28,638,625	-	-	204,328,723

(\*) Provision for outstanding claims is presented in the short term liabilities of accompanying financial statements.

#### Fund reserve risk management

The Institution's objectives when managing the fund reserve are to safeguard the Institution's ability to perform claim and borrowing payments including interests and to maximise the accumulation of fund reserve to maintain financial strength of the Institution so that the Institution can meet all commitments under its insurance contracts which are not covered by reinsurance agreements

# DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# **NOTE 5 - CASH AND CASH EQUIVALENTS**

The Institution's time and demand deposits are placed in public banks in accordance with the regulation about the operation principles and procedures for the Turkish Catastrophe Insurance Pool.

	31 December 2016	31 December 2015
Bank deposits	3,204,589,416	3,082,650,068
Total	3,204,589,416	3,082,650,068

Bank deposits are further analysed as follows:

	31 December 2016	31 December 2015
Bank deposits in TL		
- time deposits	3,178,262,024	3,077,843,309
- demand deposits	194,926	24,533
Foreign currency denominated bank deposits		
- time deposits	26,119,339	4,782,226
- demand deposits	13,127	
Total	3,204,589,416	3,082,650,068

Foreign currencies denominated time deposits are as follows:

	Amount i	Amount in foreign currency		. equivalent
	31 December 2016	31 December 2015	31 December 2016	31 December 2015
USD	7,346,692	1,644,733	25,854,478	4,782,226
EUR	71,393		264,861	
Total			26,119,339	4,782,226

Maturities of time deposits are 1.5 (31 December 2015: 1.5 months) months and weighted average annual interest rates are as follows:

Interest rate per annum (%)	31 December 2016	31 December 2015
TL	9.76	10.93
USD	1.40	1.40
EUR	1.10	

# DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# NOTE 5 - CASH AND CASH EQUIVALENTS (CONTINUED)

Cash and cash equivalents included in the statements of cash flows are as follows:

	Amount	Amount in foreign currency		TL equivalent
	31 December 2016	31 December 2015	31 December 2016	31 December 2015
USD	3,730	-	13,127	-
Total	3,730	-	13,127	-

Cash and cash equivalents included in the statements of cash flows are as follows:

	31 December 2016	31 December 2015
Cash and cash equivalents	3,204,589,416	3,082,650,068
Less: Interest accrued	(19,246,843)	(11,629,007)
Total cash and cash equivalents	3,185,342,573	3,071,021,061

# **NOTE 6 - AVAILABLE-FOR-SALE FINANCIAL ASSETS**

	31 December 2016	31 December 2015
Available-for-sale financial assets		
- government bonds and treasury bills	1,388,937,410	668,974,812
Total	1,388,937,410	668,974,812

As of 31 December 2016, the interest rate range of the available-for-sale financial assets is % 7.05 - % 11.36 (31 December 2015: %7.58 - %10.95).

As of December 2016, TL 505,078,468 (31 December 2015: 273,709,220 TL) of available - for - sale financial assets are floating rated assets.

# DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# **NOTE 6 - AVAILABLE-FOR-SALE FINANCIAL ASSETS (CONTINUED)**

Movements of available - for - sale financial assets as follows:

	31 December 2016
Beginning period - 1 January	668,974,812
Additions during the period	1,381,131,467
Disposals (Amortisation or sale) (-)	(662,371,083)
Decrease/increase of net book value of financial assets	1,202,214
Closing period - 31 December	1,388,937,410

The maturity analysis of financial assets is given in the following table:

31 December 2016	1-3 months	3-6 months	6-12 months	1-5 year	Over 5 years	No maturity	Total
Government bonds and treasury bills	154,105,525	132,468,271	3,059,646	955,816,363	143,487,605	-	1,388,937,410
Total	154,105,525	132,468,271	3,059,646	955,816,363	143,487,605	- 1	,388,937,410
31 December 2015	1-3 months	3-6 months	6-12 months	1-5 year	Over 5 years	No maturity	Total
<b>31 December 2015</b> Government bonds and treasury bills	<b>1-3 months</b> 88,255,647	<b>3-6 months</b> 73,524,402	<b>6-12 months</b> 121,676,887	<b>1-5 year</b> 215,701,425	<b>Over 5 years</b> 169,816,451	No maturity	<b>Total</b> 668,974,812

# DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

## **NOTE 7 - PREMIUM RECEIVABLES**

	31 December 2016	31 December 2015
Premium receivables from insurance companies	140,878,950	97,442,128
Provision for premium receivable (-)	(1,994,783)	
Total	138,884,167	97,442,128

The average turnover of the Institution's premium receivables is 45 days (31 December 2015: 45 days).

The Institution does not have any impaired or overdue receivables as of 31 December 2016 and 2015.

Movements of provision for premium receivable are as follows:

	2016	2015
1 January	-	
Additions during current period (*)	1,994,783	-
31 December	1,994,783	-

(\*) Doubtful receivables expenses caused by additions during current period are presented in "Other expenses" in profit or loss table.

## **NOTE 8 - OTHER CURRENT/NON CURRENT ASSETS**

31 December 2016	31 December 2015
149,224,083	154,485,797
927,475	794,400
83,805	15,000
150,235,363	155,295,197
	149,224,083 927,475 83,805

#### **Fixed Assets**

Long-term cat-bond premiums	8,006,180	16,195,736
	8,006,180	16,195,736

Excess of loss premiums and brokerage fees related to the following months consist of the costs of reinsurance coverage received and brokerage fees for the subsequent period according to the reinsurance agreement in force.

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# **NOTE 9 - PROPERTY AND EQUIPMENT**

For the years ended 31 December 2016 and 31 December 2015, movement of the tangible assets are as follows:

	1 January 2016	Additions	Disposals 31 December 2016
Cost			
Fixed Assets	7,743,036	41,961	- 7,784,997
	7,743,036	41,961	- 7,784,997
Accumulated depreciation			
Fixed Assets	(7,740,332)	(3,578)	- (7,743,910)
	(7,740,332)	(3,578)	(7,743,910)
Net book value	2,704		41,087
	1 January 2015	Additions	Disposals 31 December 2015
Cost			
Fixed Assets	7,743,036	-	- 7,743,036
	7,743,036	-	- 7,743,036
Accumulated depreciation			
Fixed Assets	(7,731,148)	(9,184)	- (7,740,332)
	(7,731,148)	(9,184)	- (7,740,332)
Net book value	11,888		2,704

# DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

### **NOTE 10 - INTANGIBLE ASSETS**

For the years ended 31 December 2016 and 31 December 2015, movement of the intangible assets are as follows:

	1 January2016	Additions	Disposals	Transfers 3	1 December 2016
Cost					
Rights	11,645,389	11,415,308		2,476,438	25,537,135
Investment in progress (*)	24,817,738	-		(2,476,438)	22,341,300
	36,463,127	11,415,308	-	-	47,878,435
Accumulated amortisation					
Rights	(5,212,039)	(6,152,870)		-	(11,364,909)
	(5,212,039)	(6,152,870)	-	-	(11,364,909)
Net book value	31,251,088				36,513,526

	1 January2015	Additions	Disposals	Transfers 31 Dec	ember 2015
Cost					
Rights	8,035,619	3,609,770			11,645,389
Investment in progress (*)	8,613,388	16,204,350	-		24,817,738
	16,649,007	19,814,120	-	-	36,463,127
Accumulated amortisation					
Rights	(2,758,909)	(2,453,130)	-		(5,212,039)
	(2,758,909)	(2,453,130)	-	-	(5,212,039)
Net book value	13,890,098			-	31,251,088

(\*) Investment in progress comprises of claim management software related to emergency disaster action plan which is not in use as of the reporting date.

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# **NOTE 11 - SHORT-TERM TRADE PAYABLES**

	31 December 2016	31 December 2015
Short term trade payables		
Reinsurance payables (*)	187,284,690	161,238,802
Catastrophic bond payables (**)	11,596,253	12,635,626
Other	1,021,824	1,324,938
	199,902,767	175,199,366
Long term trade payables		
Catasrophic bond payables (**)	8,006,180	16,195,736
	8,006,180	16,195,736

(\*) Reinsurance payables consist of the costs of reinsurance coverage to be paid in the subsequent period according to the reinsurance agreement in force.

(\*\*) Catastrophic bond payables includes catastrophic bond payables for following periods.

# **NOTE 12 - INSURANCE PROVISIONS**

### **12.1 Insurance provisions**

	31 December 2016	31 December 2015
Unearned premium reserve	452,438,159	400,547,045
Reported claims provision	9,529,479	12,539,514
Outstanding claims provision (IBNR)	660,659	394,107
Total	462,628,297	413,480,666

#### 12.2 Movements in insurance provisions

a) Unearned premium reserve

	31 December 2016	31 December 2015
Opening balance - 1 January	400,547,045	389,216,872
Premiums written during the year (Note 14)	876,177,398	787,149,764
Earned premiums during the year (Note 14)	(824,286,284)	(775,819,591)
Closing balance - 31 December	452,438,159	400,547,045

## DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# **NOTE 12 - INSURANCE PROVISIONS (CONTINUED)**

#### b) Outstanding claims provision

	2016	2015	
Opening balance - 1 January	12,933,621	12,597,136	
Outstanding claim files notified during the year	478,336	96,844	
Changes in paid claims and provisions (*)	(3,488,371)	298,886	
Incurred but not reported claims	266,552	(59,245)	
Closing balance - 31 December	10,190,138	12,933,621	

(\*) The amounts consist of paid amounts for outstanding claims in the beginning of the period and claim files closed without payment.

# NOTE 13 - ACCUMULATED EARNINGS AND AVAILABLE - FOR - SALE FINANCIAL ASSETS

a) Accumulated fund reserve (Retained earnings)

The movements of accumulated fund reserve in the period are as follows:

	2016	2015
Opening balance - 1 January	3,527,914,697	2,812,602,516
Profit for the year (Earthquake reserve increase, net)	832,229,956	715,312,181
Closing balance - 31 December	4,360,144,653	3,527,914,697

According to 9th article of the Law numbered 6305 published in the Official Gazette dated 18 May 2012, the resources and accumulated fund reserve of the Institution can only be used in claim payments to policy holders, operational costs for the administration of the Institution and commission payments to the Institution Administrator, reinsurance payments, hedging costs, payments regarding scientific research studies on the subject matters related to the Institution's jurisdiction, consultation payments, payments related to public relations and marketing campaigns, commission payments to authorized insurance companies and payments related to loss adjustment procedures.

Accumulated fund reserve cannot be used except for the abovementioned payments and cannot be transferred to any other instution. Therefore accumulated fund reserves, which consist of the current and previous profits of the Institution, are represent as "accumulated earthquake reserves" in equity.

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

## NOTE 13 - ACCUMULATED EARNINGS AND AVAILABLE - FOR - SALE FINANCIAL ASSETS (CONTINUED)

b) Revaluation surplus of available - for sale financial assets

The movements of fair value reserve in the period are as follows:

	2016	2015
 Beginning of period - 1 January	(14,258,883)	2,381,949
Disposals arising from sales in the period, net	16,257,225	1,737,307
Additions arising from financial asset purchases in the period, net (-)	(25,079,665)	(18,378,139)
Closing balance - 31 December	(23,081,323)	(14,258,883)

## **NOTE 14 - EARNED PREMIUMS**

	2016	2015
Premiums written	876,177,398	787,149,764
Unearned premium reserve (-) (Not 12)	(452,438,159)	(400,547,045)
Prior year unearned premium reserve (Not 12)	400,547,045	389,216,872
Total earned premiums	824,286,284	775,819,591

## **NOTE 15 - COST OF REINSURANCE COVERAGE**

	2016	2015
Excess of loss reinsurance agreement premiums	178,629,736	143,777,504
Excess of loss reinsurance agreement adjustment premiums	21,018,324	26,714,254
Cat-bond premium	6,357,266	41,830,731
Brokerage fees related to excess of loss reinsurance agreements	944,307	3,678,137
Total	206,949,633	216,000,626

# **NOTE 16 - COMMISSION EXPENSES**

	2016	2015
Commissions paid to insurance companies	154,192,155	130,057,129
Prior year deferred commission expense	66,719,849	64,498,095
Deferred commission expense	(81,383,425)	(66,719,849)
Total	139,528,579	127,835,375

# DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# **NOTE 17 - INCURRED CLAIMS**

	2016	2015
Outstanding claims provision at the period-end	10,190,138	12,933,621
Claims paid in the period	6,986,990	3,029,040
Prior year outstanding claims provision	(12,933,621)	(12,597,136)
Total	4,243,507	3,365,525

# **NOTE 18 - GENERAL AND ADMINISTRATIVE EXPENSES**

	2016	2015
Depreciation and amortisation expenses (Notes 9 and 10)	6,156,448	2,462,314
Information technology expenses	5,654,829	3,002,222
Expenses paid to the Institution Administrator	3,138,064	4,445,532
Office expenses	946,505	973,877
Outsource services	925,095	257,590
Advertisement expenses	811,364	2,959,850
Bank expenses	752,135	639,949
Personnel expenses	285,552	297,065
Other	752,515	1,968,602
Total	19,422,507	17,007,001

## **NOTE 19 - FINANCIAL INCOME, NET**

	2016	2015
Interest income, net	253,950,945	191,450,985
Sales income from marketable securities	120,826,269	73,631,677
Reverse repurchase transaction	5,350,538	13,083,692
Net foreign exchange gains		25,534,763
Total financial income	380,127,752	303,701,117
Net foreign exchange loss (-)	(45,071)	
Total financial expenses (-)	(45,071)	-
Financial income, net	380,082,681	303,701,117

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

# **NOTE 20 - FOREIGN CURRENCY POSITION**

The assets and liabilities denominated in foreign currencies are as follows:

	31 🛙	December 2016	31 December 2015
Assets			176,258,157
Liabilities		(207,300,057)	(190,070,165)
Net foreign currency (liabilities)/assets position		3,677,253	(13,812,008)
		31 December 2016	
	Amount in foreign currency	Foreign exchange rate	Amount TL
Cash and cash equivalents			
EUR	71,393	3.7099	264,86
USD	7,350,422	3.5192	25,867,605
Total			26,132,466
Other current assets			
EUR	7,193,484	3.7099	26,687,106
Total			26,687,106
Other current and non-current assets			
EUR	37,347,450	3.7099	138,555,305
USD	5,570,139	3.5192	19,602,433
Total			158,157,738
		31 Aralık 2015	
	Amount in foreign currency	Foreign exchange rate	Amount TL
Cash and cash equivalents			
USD	5,682,716	3.5192	19,998,614
Total			207,300,057
Other current assets			
EUR	1,644,733	2.9076	4,782,226
Total			4,782,226
Ticari borçlar			
EUR	50,742,322	3.1776	161,238,802
USD	9,915,863	2.9076	28,831,363
			190,070,165

## DOĞAL AFET SİGORTALARI KURUMU NOTES TO THE FINANCIAL STATEMENTS AT 31 DECEMBER 2016

(Amounts expressed in Turkish Lira ("TL") unless otherwise stated.)

## **NOTE 21 - PROVISIONS AND CONTINGENT LIABILITIES**

As of 31 December 2016, the total risk of litigation claims pending against the Institution amount to TL 9,013,475 (31 December 2015: TL 12,442,889). The total estimated ultimate cost of settling such litigation claims are provided for under claims provision in the balance sheet.

As of 31 December 2016 the Institution has TL 1,994,783 (31 December 2015: None) litigation from proceeded and pending legal cases for collection of premium receivables and presented below provision for premium receivables in balance sheet.

## **NOTE 22 - SUBSEQUENT EVENTS**

None.

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