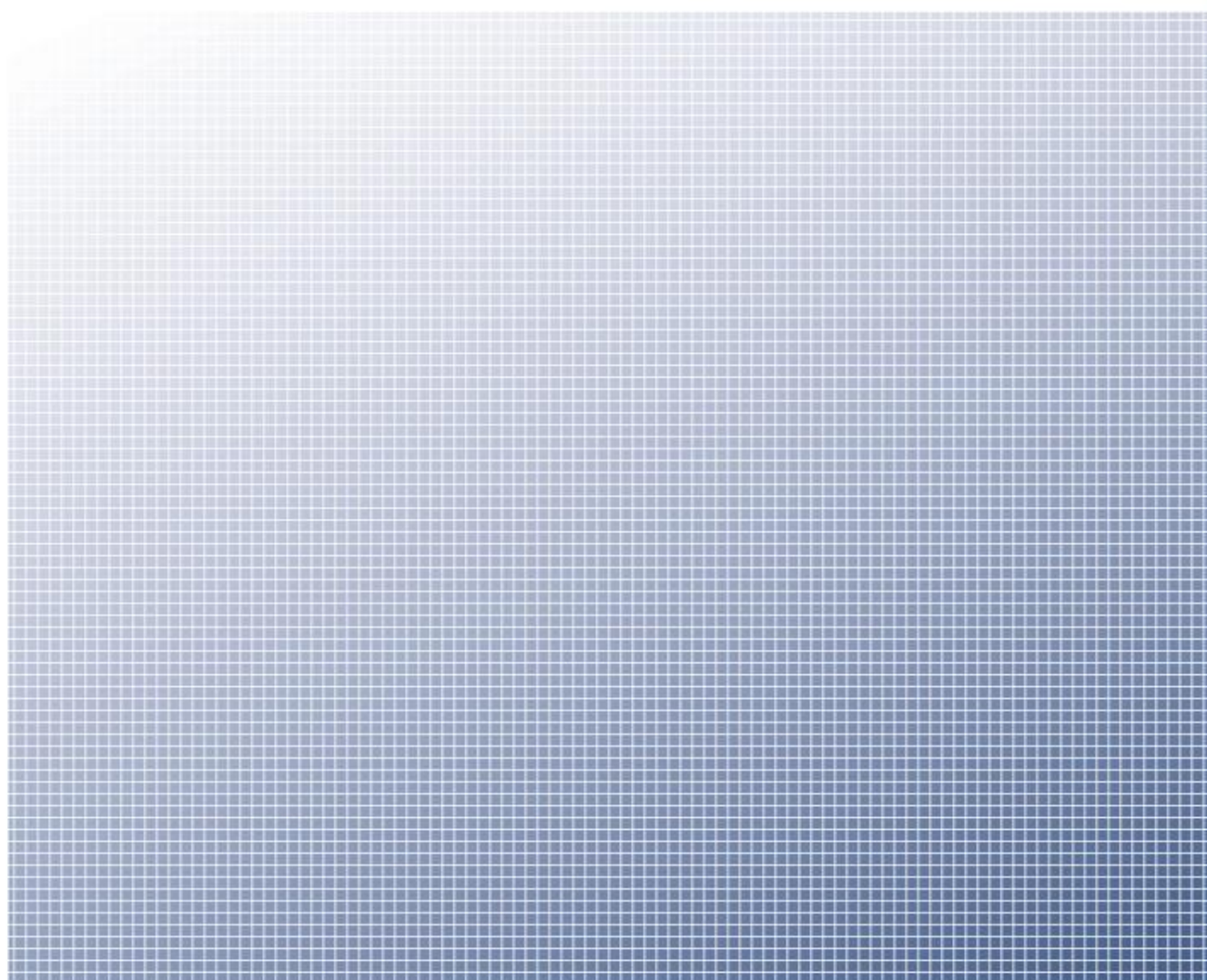


30th November 2017

Bermuda Monetary Authority

Bermuda's Coordinated Portfolio Investment Survey (CPIS)

2016 Report



Foreword

The Coordinated Portfolio Investment Survey (CPIS) is a voluntary data collection exercise conducted annually under the auspices of International Monetary Fund (IMF). The CPIS collects information on economies' cross-border holdings of portfolio investment securities. 'Portfolio investment' is defined as cross-border transactions and positions involving debt or equity securities, other than those included in the direct investment or reserve assets.

CPIS data, which is published on the IMF website, is augmented with information from two other surveys, the Securities Held as Foreign Exchange Reserve (SEFER) and Securities Held by International Organisations (SSIO).

The IMF has been conducting the CPIS since 1997 and over 80 countries currently participate in the survey. Bermuda has been participating in this exercise since 2001.

Bermuda's numbers include data from both the domestic sector and international sector. The size and relevance of the latter makes Bermuda an International Financial Centre (IFC).

This report covers Bermuda's CPIS results for 2016. The report is a product of the staff of the Bermuda Monetary Authority's Financial Stability Department.

Bermuda Monetary Authority would like to extend its sincere gratitude to all entities that participated in this year's survey.

We hope you will find the information in this report of interest. Should you have any questions, comments or suggestion to improve this report, please contact Leo Mucheriwa at lmucheriwa@bma.bm.

Financial Stability Team

Bermuda Monetary Authority

November 2017

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1. Executive Summary

This study is part of the IMF's comprehensive international survey and measures Bermuda's holdings of foreign portfolio investment assets. Foreign portfolio investment assets relates to tradable financial instruments, other than direct investments or reserve assets, issued by unrelated non-residents¹.

Data for portfolio investment assets is separately requested for equity, investment funds shares and debt securities, and geographically allocated by the country of residency of the issuer. The primary purpose of this study is to provide countries with estimates of their foreign portfolio assets, at market value, and to enhance the quality of statistics on global capital flow.

Bermuda's foreign portfolio investment assets (foreign portfolio holdings) amounted to US\$ 546,249 million as of end-December 2016. This represents an increase of 8% (US\$ 40,772 million) from 2015. The increase can be attributed to the increase in the insurance sector's total assets² which surpassed the decrease in the net assets values of investment funds.³

Bermuda's foreign portfolio holdings consist mainly of debt securities. As of end-December 2016, Bermuda's holding of foreign debt securities amounted to US\$ 447,209 million, representing 82% of Bermuda's foreign portfolio holdings. Debt securities were predominantly made up of long-term debt securities which accounted for 93% (US\$ 416,970 million) of total debt securities – short-term debt securities amounted to US\$ 30,239 million, accounting for the remaining 7% of total debt securities. Holdings of foreign equity amounted to US\$ 99,220 million, representing 18% of Bermuda's foreign portfolio holdings.

Geographically, holdings in the United States dominated Bermuda's foreign portfolio investment assets. As of end-December 2016, the United States accounted for 58% (US\$ 314,304 million) of the total holdings of Bermuda's foreign portfolio investment assets, an increase of 7% (US\$ 20,505 million) from 2015. Issuances by the United Kingdom and Canada both accounted for 6% each. The remaining countries had shares of 3% or less.

¹ The IMF defines unrelated non-resident as non-resident counterparty with an equity interest of less than 10% in the enterprise, or vice versa. If the counterparty's share is 10% or more, it is considered a related non-resident (direct investment) and reported under the Co-ordinated Direct Investment Survey (CDIS).

² Total assets for the insurance sector uses data based on 2015 filings which was published in the BMA's 2016 Annual Report

³ Insurance sector total assets increased from \$583 bln in 2015 to \$632 bln in 2016 while the total net asset value of investment funds decreased from \$144 bln in 2015 to \$137 bln in 2016.

In addition to the geographical breakdown, Bermuda's foreign portfolio holdings are also broken down by subsector. The subsectors are broken down into four broad segments: insurance⁴; investment funds; banking; and government. The insurance subsector heavily dominates Bermuda's foreign portfolio holdings - as of end-December 2016 it had an ownership share of 84% (US\$ 458,683 million). Insurance has been the largest holder subsector since 2001 when the survey was first conducted in Bermuda. This is consistent with the size and relevance of the insurance subsector in Bermuda, a predominantly insurance-based international financial centre specialising in the niche of catastrophe reinsurance.

Investment funds were the second largest subsector accounting for 14% (US\$ 76,104 million), followed by banks which accounted for 2% (US\$ 9,407 million). Bermuda government's foreign portfolio holdings amounted to US\$ 2,234 million, representing less than 1% of the total Bermuda's foreign portfolio holdings as of end-December 2016.

As of end-December 2016, the value of Bermuda's derived liabilities⁵ amounted to US\$ 520,142 million, an increase of 5% (or US\$ 26,539) from 2015.⁶ Bermuda's derived liabilities consist mainly of equity securities which represent 87% of Bermuda's total derived liabilities. Geographically, Bermuda derived liabilities are dominated by United States and Hong Kong, who together had a 74% share (United States 46% and Hong Kong 28%) as at end-2016.

⁴ Pension funds are included as part of insurance, however their contribution is less than 1% of the total insurance foreign portfolio holdings.

⁵ Derived liabilities shows, from the perspective of the economy issuing the securities, the value of securities held by non-residents as "derived" from information reported by the holders of the securities (creditor information).

⁶ The "derived liability" numbers are generated only when the sum of reported holdings of securities issued by a given country is at least US\$ 10 million.

2. Background

2.1. What is CPIS?

CPIS is a voluntary data collection exercise conducted annually under the auspices of IMF. Data is provided on holdings of cross-border portfolio investment securities issued by unrelated non-residents⁷. Data is separately requested for equity and investment fund shares, long-term debt instruments and short-term debt instruments, and geographically allocated by the economy (country) of residency of the issuer. The CPIS data, which is published on the IMF website, is augmented with information from two other surveys, the Securities Held as Foreign Exchange Reserve (SEFER) and Securities Held by International Organisations (SSIO).

The IMF has been conducting the CPIS since 1997 and over 80 countries currently participate in the survey. Bermuda has been participating in this exercise since 2001.

2.2. Why we do it?

Bermuda's participation in the CPIS contributes to improved understanding of Bermuda as an international financial centre and its impact on global financial intermediation. This ultimately enhances the reputation of Bermuda and re-emphasises its commitment to a high standard of transparency.

Overall, the aim of the CPIS is to improve statistics of holdings across the globe of portfolio investment assets in the form of equity, long-term debt and short-term debt. Specifically, the IMF has identified the following as the main objectives of the survey:

1. To collect comprehensive information, with geographical detail on the country of residence of the issuer, on the stock of cross-border equities, long-term bonds and notes and short-term debt instruments for use in the compilation or improvement of international investment position (IIP) statistics on portfolio investment capital. The IIP statistics, in turn, can provide information to check the coverage recorded estimates of portfolio investment financial flows and associated investment income transactions recorded in the balance of payments; and

⁷ The IMF defines unrelated non-resident as non-resident counterparty with an equity interest of less than 10% in the enterprise, or vice versa. If the counterparty's share is 10% or more, it is considered a related non-resident (direct investment) and reported under the Co-ordinated Direct Investment Survey (CDIS).

2. To exchange the bilateral data. When the results of the CPIS become available, the data may be exchanged among the participating countries, as well as with other countries. By exchanging comparable data (subject to confidentiality constraints), participating countries should be able to improve their statistics of non-resident holdings of their portfolio investment liabilities, as well as associated financial flows and investment income data (information on the geographic distribution of non-resident creditors also becomes known).

2.3. What type of information is collected?

The CPIS collects information on economies cross-border holdings of portfolio investment securities. “Portfolio investment” is defined as cross border transactions and positions involving debt or equity securities, other than those included in the direct investment or reserve assets. A “security” is defined as a financial instrument designed to be traded, i.e., it is characterised by its negotiability and classified as either equity or debt securities.

Equity securities comprise all instruments and records that acknowledge claims on the residual value of corporations or quasi-corporations after the claims of creditors have been met. For the purposes of the CPIS, mutual funds are also classified as equity regardless of their underlying assets.

Debt securities are negotiable instruments serving as evidence of debt. They give the holders the unconditional right to fixed or contractually determined variable payments (i.e., earnings of interest is not dependent on earnings of the debtors). The maturity of a debt instrument is classified as either long-term (a maturity of more than one year or with no stated maturity, other than on demand) or short-term (payable on demand or with a maturity of one year or less).

The CPIS collects data from the asset side only because the holder (creditor) will usually know what securities it holds. On the liabilities side, the issuer of the security (debtor) may not know the residency of the holder because the securities may be held by foreign custodians or other intermediaries. Using the assets data reported by CPIS participating economies, the IMF derives liabilities data for all economies; these data are termed “derived liabilities”.

2.4. Methodology⁸

The CPIS is administered by the IMF and coordinated locally by the Bermuda Monetary Authority (the Authority). The 2016 survey was conducted by means of a questionnaire on a voluntary best-effort basis using the approach stipulated in the IMF Coordinated Portfolio Investment Survey Guide, second edition, 2002⁹.

The data is reported in accordance with the residence principle recommended by the IMF's Balance of Payment and International Investment Position Manual (BPM6)¹⁰. Therefore, Bermuda's numbers include data from non-resident entities legally domiciled in Bermuda. However, for the purpose of compiling balance of payments and national income accounts statistics, non-resident entities are excluded. The size and relevance of the non-resident entities makes Bermuda an International Financial Centre (IFC)¹¹.

The CPIS questionnaire for the period ended December 31, 2016 was posted on the Authority's official website and all financial services entities (i.e. banks, insurers, investment funds and pension funds¹²) regulated by the Authority and the Bermuda government were invited to participate in the exercise. Participants were given up to five weeks to complete the survey. At the end of five weeks, the received data was aggregated and extrapolated using 2016 total financial assets for each subsector.

Limitations:

Bermuda's CPIS statistics is currently based on data collected from the Bermuda government and financial services industry only. The data does not include foreign portfolio holdings from other sectors, i.e. non-financial corporations and households¹³.

For the insurance subsector, the survey was limited to commercial (re)insurers only. As of end-December 2015, commercial (re)insurers represents 56% of the Bermuda-based insurance market if measured by gross premiums written or 64% if measured by assets.

⁸ All the figures that are reported in this report were extracted from the IMF website as at September 18, 2016.

⁹ https://www.imf.org/external/pubs/ft/cpis/2002/pdf/cpis_index.pdf

¹⁰ IMF's Balance of Payments and International Investment Position Manual (BPM6) sixth edition
<https://www.imf.org/external/pubs/ft/bop/2007/pdf/bpm6.pdf>

¹¹ Zoromé, (2007), IMF working paper, define IFC as "country or jurisdiction that provides financial services to non-residents on a scale that is incommensurate with the size and the financing of its domestic economy".

¹² For insurance entities, the invitation was only extended to commercial insurers; and Pension funds and Bermuda government does not fall under the Authority's directive.

¹³ Several other jurisdictions are currently collecting financial sector data only and do not capture data from households as the mechanism to ask individual householders about their holdings is not practicable.

Bermuda has been participating in this exercise since 2001 with data collection methodology and sample size ameliorating over the years. Therefore, Bermuda's CPIS data is constantly reviewed and assessed for reasonableness, and when errors are discovered, data from previous years is revised. As a result of these on-going improvements, some of the volatilities on Bermuda data trends are driven from changes in the sampling techniques.

Apart from checking for reasonableness, the Authority does not verify if the allocation of the portfolio holdings, either by type of securities or geographical distribution, is correct. Full reliance is placed on the participating entities that provide the data.

Under the CPIS data collection methodology, positions in investment funds are indistinctly classified as equity assets. However, the assets held through the intermediation of foreign investment funds might not consist of equity securities only. Also, the country of residence of their issuer might differ from that of mutual fund, therefore, the security type and geographical distribution of such assets might be distorted¹⁴.

¹⁴ Monti.P, Felettigh A (2008), Bank of Italy, Economics and International Relations

3. Overview of Bermuda's foreign portfolio holdings

The value of Bermuda's foreign portfolio investment assets (foreign portfolio holdings) totalled US\$ 546,429 million¹⁵ as of end-December 2016, an increase of 8% from 2015 and an increase of 22% from 2006. Portfolio holdings for 2015 and 2006 were US\$ 505,656 million and US\$ 448,661 million, respectively. (Table 4.1)

Table 3.1 -Bermuda's foreign portfolio holdings: 2006 – 2015

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Portfolio holdings - US\$ mln	448,661	573,708	396,069	471,535	551,045	460,362	439,533	444,649	516,317	505,656	546,429
Y/Y change - US\$ mln	-	125,047	-177,639	75,466	79,510	-90,683	-20,828	5,116	71,667	-10,660	40,772
Y/Y change - percent	-	28%	-31%	19%	17%	-16%	-5%	1%	16%	-2%	8%

Source: IMF and Authority staff calculations

Consistent with global trends, Bermuda's total foreign portfolio holdings experienced strong growth in the lead up to the global recession before a sharp decline in 2008 and since then, have been gradually growing, albeit with some year-on-year fluctuations. The general increase in foreign portfolio holdings since 2006 can be attributed to the growth of the financial service industry in Bermuda. (Figure 4.1)

Figure 3.1

Bermuda's foreign portfolio holdings: 2006 – 2016



Source: IMF and Authority staff calculations

Bermuda's foreign portfolio holdings consist mainly of debt securities. At the end of December 2016, Bermuda holdings of foreign debt securities amounted to US\$ 447,209 million, representing 82% of Bermuda's foreign portfolio holdings. This is an increase of 12% (or US\$ 48,815 million) from 2015 and 34% (or US\$ 112,470 million) from 2006. Debt

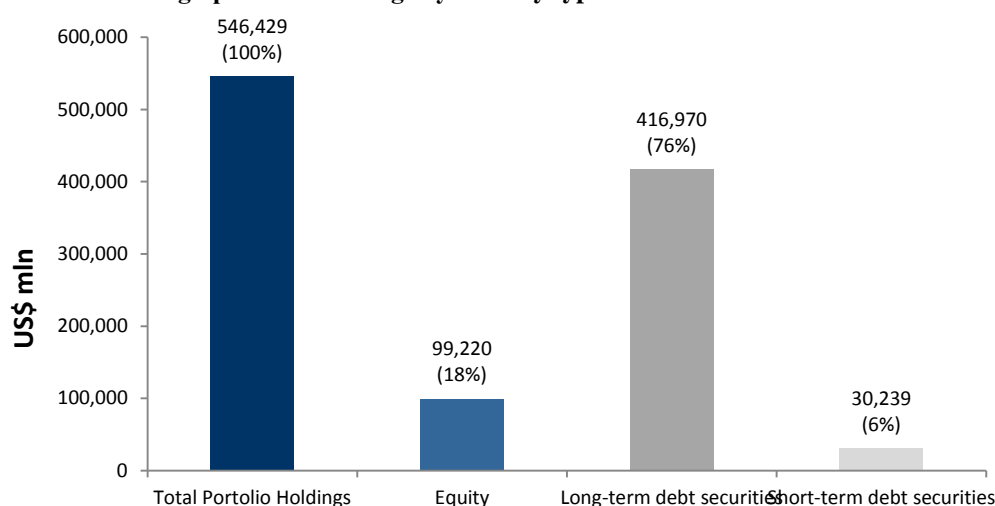
¹⁵ Bermuda's portfolio holdings make up approximately 69% of the total Bermuda financial services assets.

securities are made up of predominantly long-term debt securities which account for 93% (or US\$ 416,970 million) of total foreign debt securities (Figure 4.2).

For the same period, foreign equity securities amounted to US\$ 99,220 million, a decrease of 7% (or US\$ 8,042 million) from 2015 and 13% (or US\$ 14,702 million) from 2006. Foreign equity securities have averaged 17% of the total foreign portfolio holdings for Bermuda since 2006.

Figure 3.2

Bermuda's foreign portfolio holdings by security type – 2016

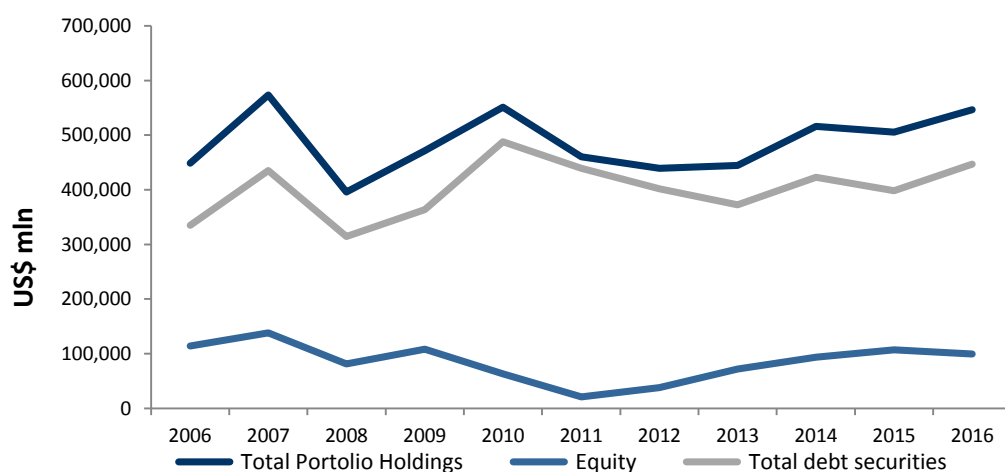


Source: IMF and Authority staff calculations

Total debt and equity foreign investment assets have both fluctuated over the last ten years. Foreign debt securities peaked in 2010 when they amounted to US\$ 488,142 million, while the lowest point was in 2008, when foreign debt securities amounted to US\$ 314,771 million. Foreign equity securities reached its highest level in 2007 just before the recession, with holdings of US\$ 138,295 million. The lowest ever holdings on record for foreign equity was in 2011 at US\$ 20,802 million (Figure 4.3).

Figure 3.3

Bermuda's foreign portfolio holdings by security type: 2006 – 2016



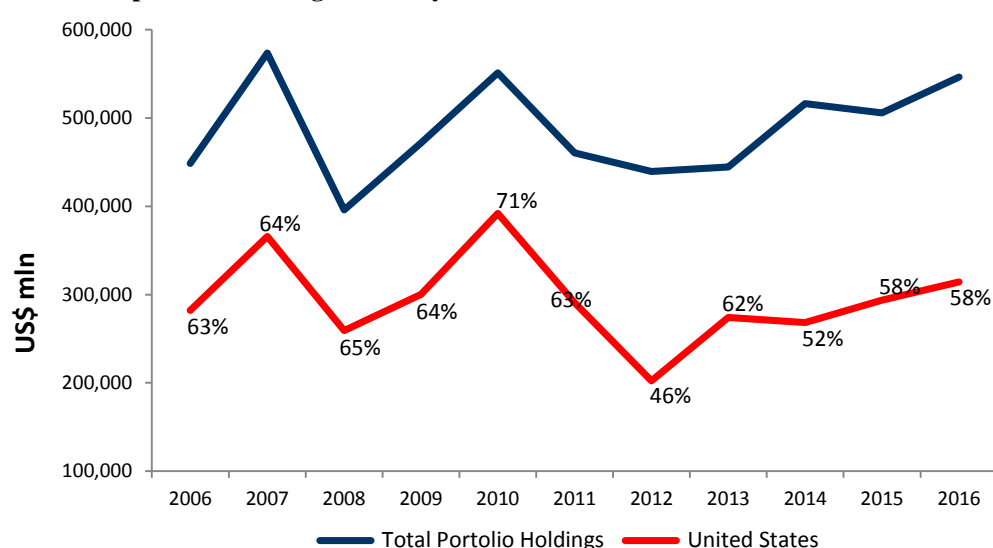
Source: IMF and Authority staff calculations

4. Geographical distribution

Bermuda's foreign portfolio holdings have demonstrated a relatively stable geographical distribution over the years. With a total market value of US\$ 314,304 million, as of end-December 2016, the investment securities issued by United States residents/entities dominate Bermuda's foreign portfolio investment assets. This represents an increase of 7% (or US\$ 20,505 million) from 2015 and 58% of the total portfolio holdings for Bermuda during the year. Since 2006, the United States has accounted for 60% of total foreign portfolio holdings for Bermuda on average (Figure 5.1).

Figure 4.1

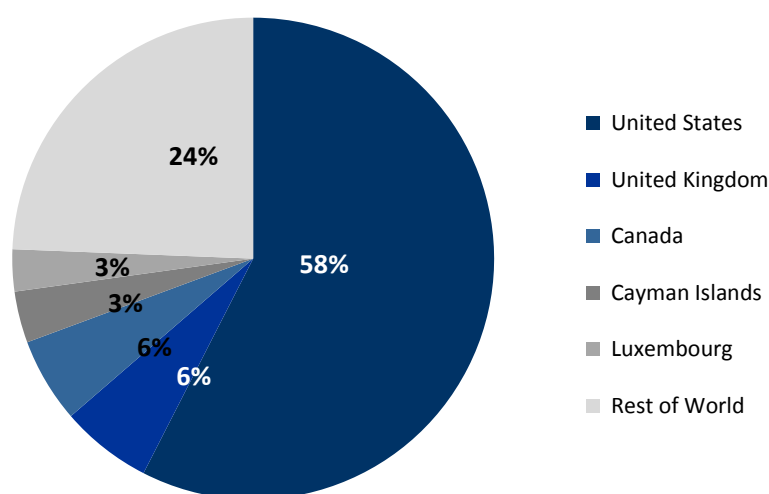
Bermuda's portfolio holdings issued by United States: 2006 – 2016



Source: IMF and Authority staff calculations

Other countries which also had significant contribution to Bermuda's foreign portfolio holdings in 2016 include the United Kingdom and Canada, each contributing 6%. Luxembourg and the Cayman Islands both contributed 3% while all other countries had shares of 2% or less to account for the remainder (Figure 5.2).

Figure 4.2
Geographical distribution of Bermuda's foreign portfolio holdings



Source: IMF and Authority staff calculations

The share of portfolio investment securities issued by United Kingdom residents/entities decreased from 7% in 2015 to 6% in 2016. Since 2006, Bermuda's holdings of securities from the United Kingdom have averaged 8%. In contrast, the share of investments from Canadian residents/entities increased from 4% in 2015 to 6% in 2016. Over the same period, the Cayman Islands and Luxembourg remained unchanged at 3%, while French holdings decreased from 3% to 2%. Table 5.1 shows the top 15 countries in terms of contribution to Bermuda's foreign portfolio holdings.

Table 4.1
Geographical distribution as of end-December, 2016 - Top 15 countries

2016 Ranking	Country	contribution as percentage of total foreign portfolio holdings										
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	United States	63%	64%	65%	64%	71%	63%	46%	62%	52%	58%	58%
2	United Kingdom	12%	10%	6%	4%	7%	7%	14%	6%	5%	7%	6%
3	Canada	1%	1%	1%	5%	2%	3%	3%	2%	5%	4%	6%
4	Cayman Islands	3%	3%	3%	9%	1%	1%	2%	5%	4%	3%	3%
5	Luxembourg	1%	1%	1%	1%	1%	2%	2%	2%	4%	3%	3%
6	France	2%	3%	4%	3%	2%	3%	3%	2%	2%	3%	2%
7	Netherlands	1%	2%	1%	2%	3%	3%	3%	2%	2%	2%	2%
8	Japan	2%	2%	3%	1%	1%	0%	0%	0%	1%	2%	2%
9	Australia	1%	1%	1%	1%	1%	2%	2%	1%	2%	2%	2%
10	China, P.R.: Hong Kong	1%	1%	1%	1%	1%	0%	0%	0%	2%	1%	1%
11	Ireland	1%	1%	2%	1%	1%	1%	3%	3%	4%	2%	1%
12	Virgin Islands, British	1%	1%	0%	0%	0%	0%	0%	1%	2%	1%	1%
13	Germany	4%	4%	4%	3%	2%	3%	3%	2%	1%	2%	1%
14	International Organizations	0%	0%	0%	0%	0%	2%	1%	1%	1%	1%	1%
15	Korea, Republic of	1%	1%	1%	0%	0%	0%	0%	0%	1%	1%	1%

Source: IMF and Authority staff calculations

** International Organisations include securities issued by international agencies such as the United Nations and the World Bank. Such securities are not given a geographical attribution but rather are categorised under “international organisations”. International organisations have had a 1% percent share for the past five years as shown in Table 5.1.

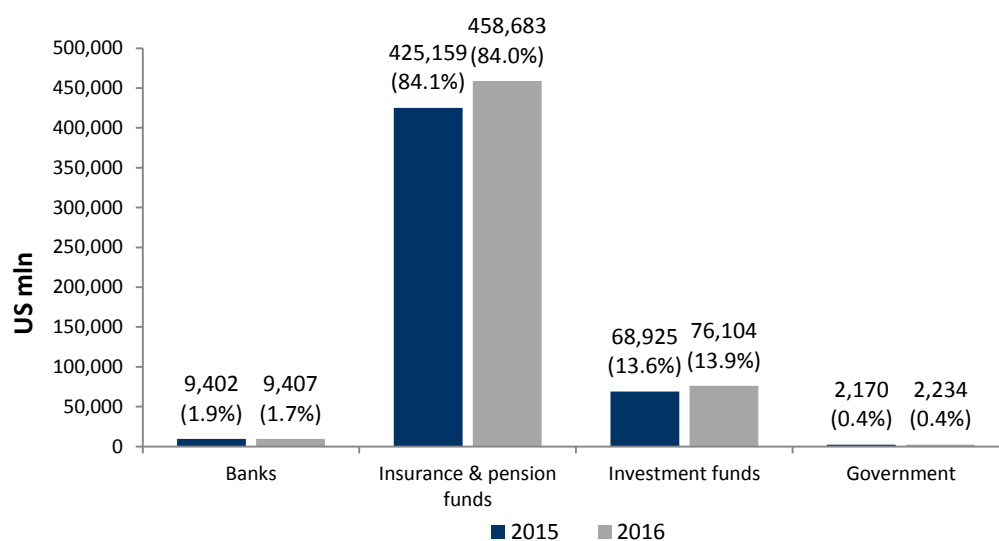
5. Sector Breakdown

5.1. Overview of Sector Breakdown

Bermuda currently collects foreign portfolio holdings data from the Bermuda government and the financial services industry only. For the purpose of the CPIS, financial services subsectors are broken down into three broad segments - insurance, investment funds and banking. Figure 6.1.1 compares the breakdown of the Bermuda foreign portfolio holdings for each subsector in 2015 and 2016.

Figure 5.1.1

Bermuda's foreign portfolio holdings by sector



Source: IMF and Authority staff calculations

Bermuda is predominantly an insurance-based international financial centre and this is reflected in the distribution of foreign portfolio holdings. At the end of December 2016, the insurance subsector heavily dominated Bermuda's foreign portfolio holdings with an ownership share of 84% (or US\$ 458,683 million), followed by investment funds which had a share of 14% (or US\$ 76,104 million) and banking with a 2% (or US\$ 9,407 million) share (Table 6.1.1).

Table 5.1.1 - Bermuda foreign portfolio holdings by sector

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Insurance	270,231	356,237	239,333	352,265	424,482	351,149	331,757	338,311	425,659	425,159	458,683
Investment Funds	170,656	209,826	150,033	113,192	119,695	98,717	97,140	94,707	80,161	68,925	76,104
Banks	5,514	5,401	4,762	3,827	4,579	7,361	7,647	9,386	8,236	9,402	9,407
Government	1,555	1,483	1,305	1,549	1,869	1,882	2,042	2,246	2,260	2,170	2,234
Other	705	760	637	702	419	1,254	948	-	-	-	-

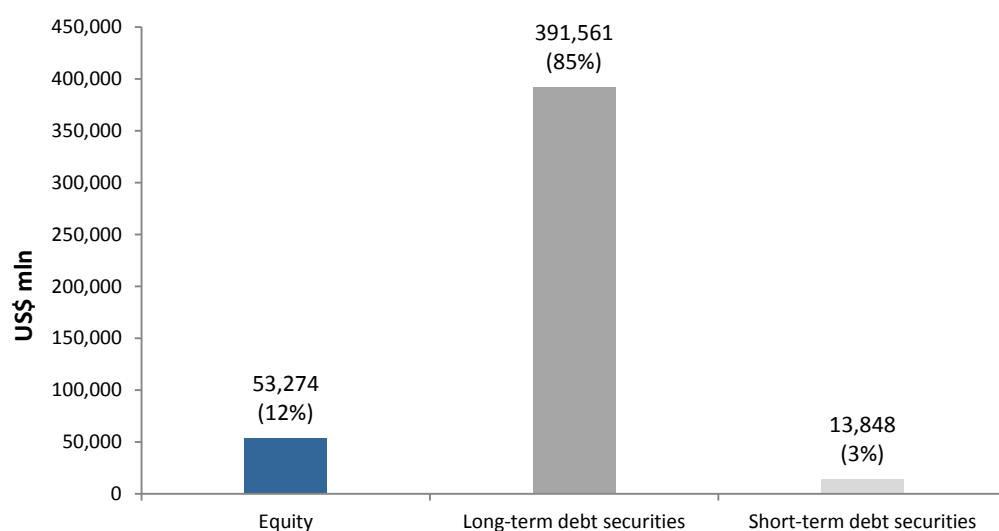
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Insurance	60.23%	62.09%	60.43%	74.71%	77.03%	76.28%	75.48%	76.08%	82.44%	84.08%	83.94%
Investment Funds	38.04%	36.57%	37.88%	24.01%	21.72%	21.44%	22.10%	21.30%	15.53%	13.63%	13.93%
Banks	1.23%	0.94%	1.20%	0.81%	0.83%	1.60%	1.74%	2.11%	1.60%	1.86%	1.72%
Government	0.35%	0.26%	0.33%	0.33%	0.34%	0.41%	0.46%	0.51%	0.44%	0.43%	0.41%
Other	0.16%	0.13%	0.16%	0.15%	0.08%	0.27%	0.22%	-	-	-	-

Source: IMF and Authority staff calculations

5.2. Insurance

The insurance industry has been the largest foreign portfolio holder sector since the inception of the CPIS report in Bermuda. Consistent with Bermuda's overall foreign portfolio holdings, insurance foreign portfolio investment assets in 2016 were predominately made up of debt securities. These securities account for 88% (or US\$ 405,409 million) of total insurance foreign portfolio holdings, of which 85% (or US\$ 391,561 million) were long-term debt securities and 3% (or US\$ 13,848 million) were short-term debt securities. Equity accounted for the remaining 12% (or US\$ 53,274) of total insurance foreign portfolio holdings (Figure 6.2.1).

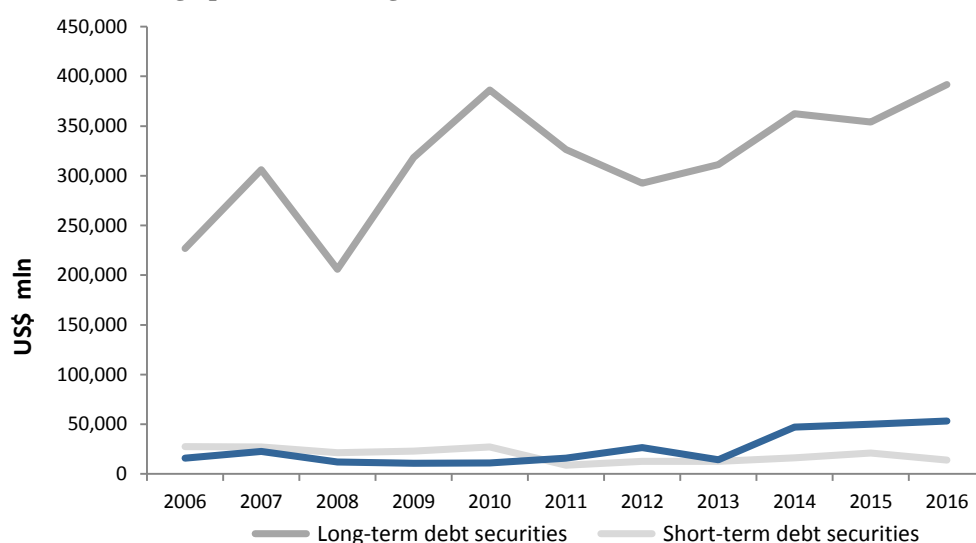
Figure 5.2.1
Insurance foreign portfolio holdings by security type – 2016



Source: IMF and Authority staff calculations

The amount of long-term debt securities for insurance foreign portfolio holdings has trended upwards since 2006 despite some year-on-year fluctuations. Over the same time horizon, total short-term debt securities have been in decline (Figure 6.2.2).

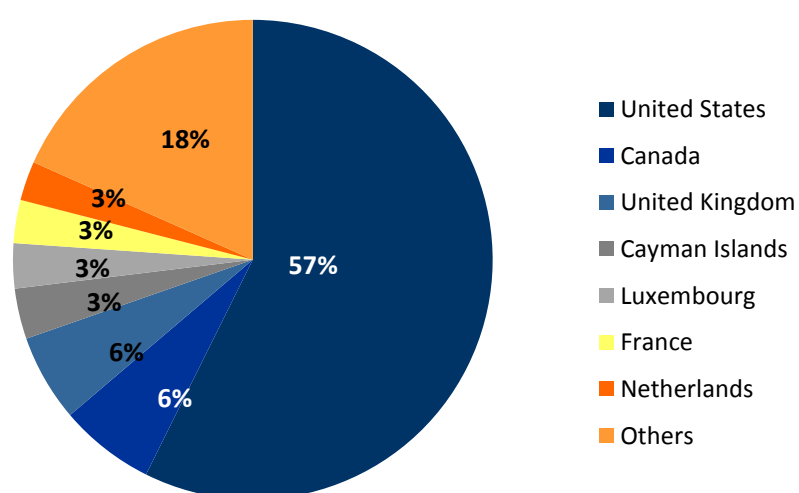
Figure 5.2.2
Insurance foreign portfolio holdings trend: 2006 – 2016



Source: IMF and Authority staff calculations

Geographically, insurance foreign portfolio holdings closely mirror the aggregated foreign portfolio holdings' geographical distribution for Bermuda. As of end-December 2016, the United States accounted for the largest share (57% or US\$ 263,016 million) followed by Canada (6% or US\$ 29,556 million) and the United Kingdom (6% or US\$ 26,943 million) (Figure 6.2.3).

Figure 5.2.3
Geographical distribution insurance foreign portfolio holdings - 2016



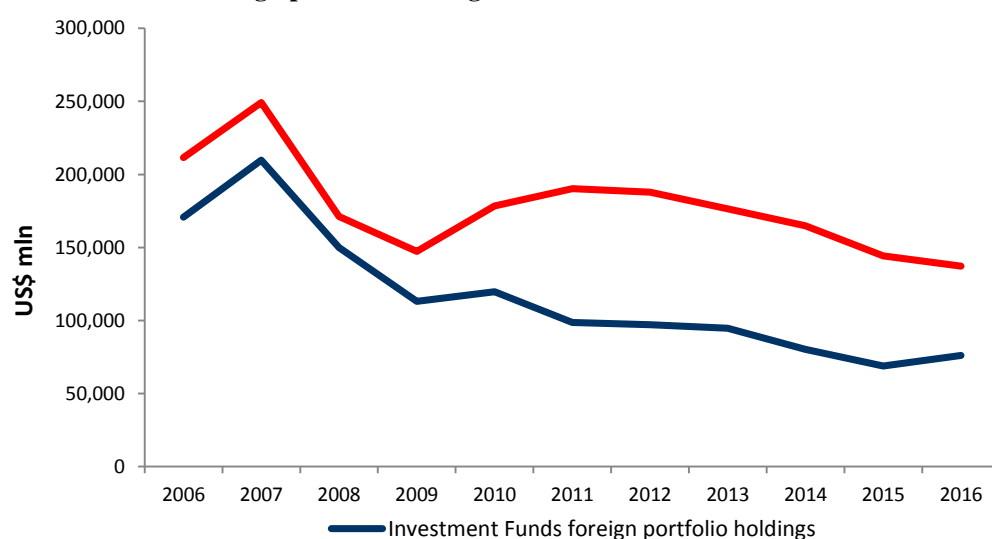
Source: IMF and Authority staff calculations

5.3. Investment Funds

As at 31 December 2016, investment funds had a Net Asset Value (NAV) of US\$ 137,150 million or 17% of total financial services sector assets in Bermuda. This makes investment funds the second biggest financial subsector in Bermuda after insurance. As of end-December 2016, investment fund foreign portfolio holdings amounted to US\$ 76,104 million, an increase of 10% (or US\$ 7,179 million) from 2015. This represents the first year-on-year increase of the investment fund foreign portfolio holdings since 2010 despite the continuous decrease in the NAV. Overall, foreign portfolio holdings for investment funds have trended downwards since 2007 (Figure 6.3.1).

Figure 5.3.1

Investment Fund foreign portfolio holdings & Net Asset Value: - 2006 – 2016



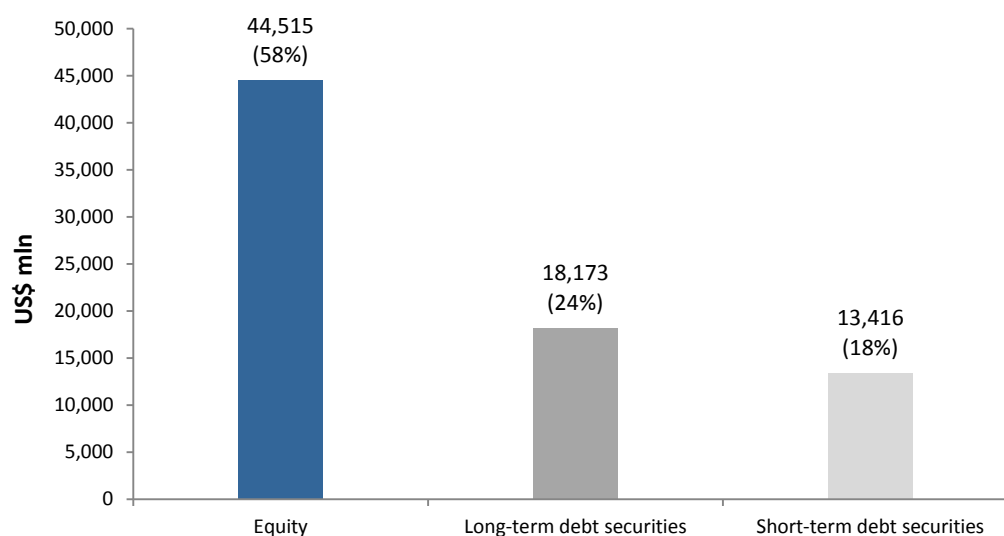
Source: IMF and Authority staff calculations

In contrast to the insurance subsector, the majority of foreign portfolio holdings for investment funds consist of equity. At the end of 2016, equity made up 58% (or US\$ 44,515 million) and debt securities made up 42% (or US\$ 31,589 million) of total investment funds' foreign portfolio holdings. Approximately 58% (or US\$ 18,173 million) of investment fund debt securities are long-term and 42% (or US\$ 13,416 million) are short-term (Figure 6.3.2).

Overall, the portion of debt to equity securities for investment funds' foreign portfolio holdings has consistently fluctuated over the years for which the CPIS has been conducted in Bermuda. This inconsistency is partly attributed to continued improvements in the data collection methodology and the increase in sample size which has enhanced the quality of Bermuda's foreign portfolio holdings data.

Figure 5.3.2

Investment Fund foreign portfolio holdings by security type – 2016

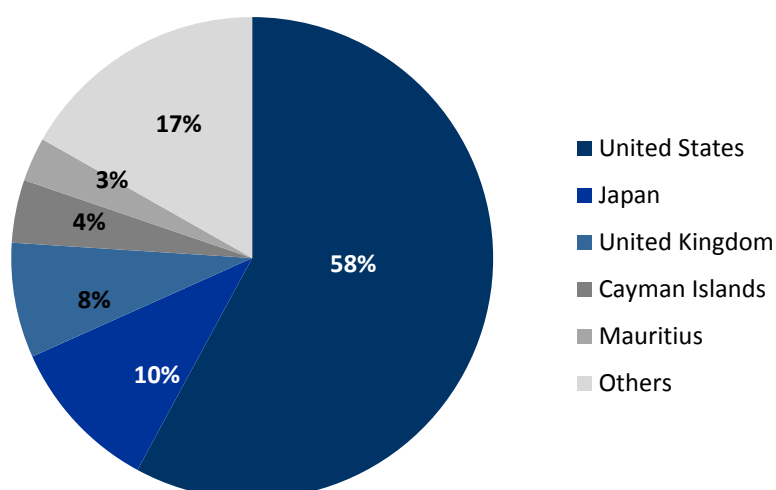


Source: IMF and Authority staff calculations

Geographically, the distribution of investment fund foreign portfolio holdings has some differences when compared to the insurance subsector. The United States holds the largest portion (58% or US\$ 44,063 million) followed by Japan which holds a 10% (or US\$ 7,913 million) share of investment fund foreign portfolio holdings. The United Kingdom, Cayman Islands and Mauritius are also significant contributors to total foreign portfolio holdings for investment funds (Figure 6.3.3).

Figure 5.3.3

Geographical distribution of Investment Fund portfolio holdings – 2016



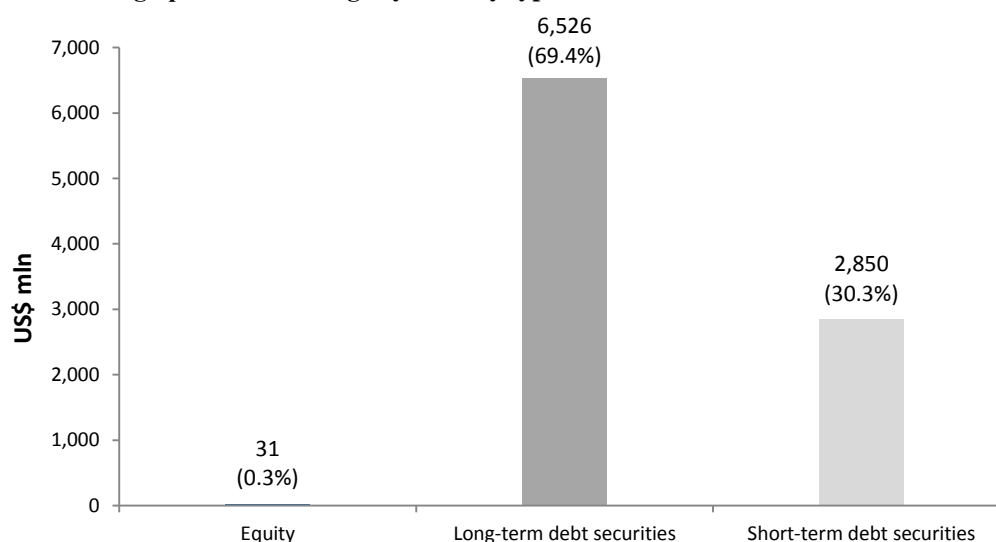
Source: IMF and Authority staff calculations

5.4. Banks

Bank assets made up 3% (or US\$ 22,713 million) of the total financial services assets in Bermuda as of end-December 2016 to make banking the third largest financial service subsector after insurance and investment funds. Foreign portfolio holdings for banks amounted to US\$ 9,407 million at the end of 2016, representing less than 2% of Bermuda's total foreign portfolio holdings. Consistent with overall foreign portfolio holdings for Bermuda, banks' foreign portfolio assets consist mainly of debt securities which account for over 99% (or US\$ 9,376 million) of banks' foreign portfolio holdings. Equity represents less than 1% (or US\$ 31 million) of banking foreign portfolio holdings (Figure 6.4.1).

Figure 5.4.1

Banks' foreign portfolio holdings by security type – 2016

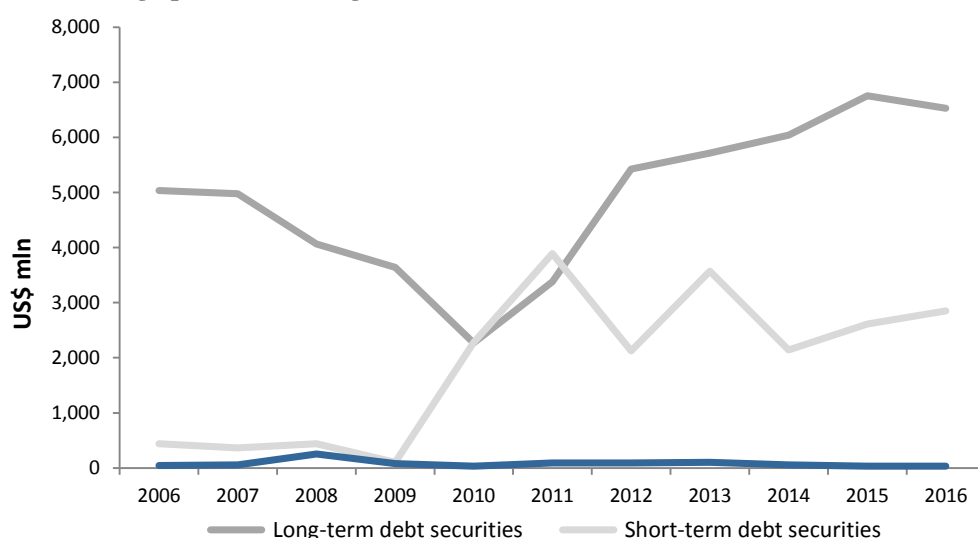


Source: IMF and Authority staff calculations

Noticeably, the proportion of banks' holdings on foreign short-term debt securities has significantly increased within the last ten years. At the end of 2016, short-term debt securities amounted to US\$ 2,850 million which represents 30% of the banks' foreign portfolio holdings compared to US\$ 437 million (or 8%) in 2006. Over the same period, long-term debt securities significantly fell between 2008 and 2010 before recovering. At the end of 2016, long-term debt securities amounted to US\$ 6,526 million. This represents 69% of foreign portfolio holdings for banks (Figure 6.4.2).

Figure 5.4.2

Banks' foreign portfolio holdings trend: 2006 – 2016

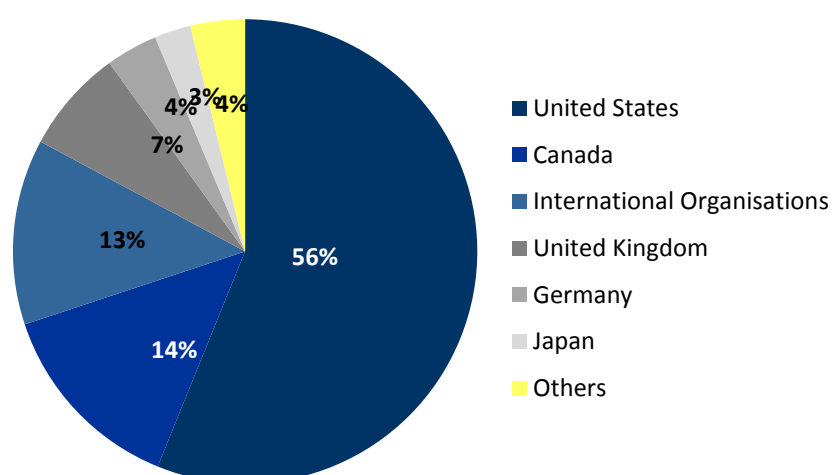


Source: IMF and Authority staff calculations

Geographically, banks' foreign portfolio holdings are dominated by the United States with 56% (or US\$ 5,282 million) of holdings, Canada with 14% (or US\$ 1,295 million) and International Organisations with 13% (or US\$ 1,216 million). Overall, United States, Canada, International Organisations and the United Kingdom have remained among the largest contributors to Bermuda banks' foreign portfolio holdings over the years. The holdings in Japan have significantly dropped from 12% in 2015 to 4% in 2016 (Figure 6.4.3).

Figure 5.4.3

Geographical distribution of banks' foreign portfolio holdings – 2016



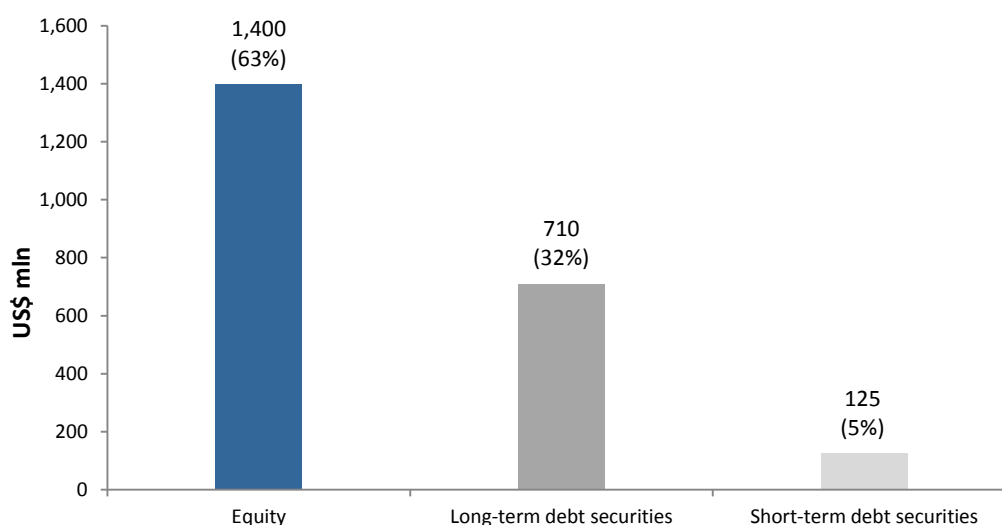
Source: IMF and Authority staff calculations

5.5. Bermuda Government

At the end of 2016, Bermuda government foreign portfolio holdings amounted to US\$ 2,234 million, representing less than 1% of Bermuda's total foreign portfolio holdings. The majority of Bermuda government foreign portfolio holdings are in equity securities (US\$ 1,400 million (or 63%). Debt securities holdings amounted to US\$ 835 million (or 37%), predominantly consisting of long-term debt securities (Figure 6.5.1).

Figure 5.5.1

Bermuda government foreign portfolio holdings by security type – 2016

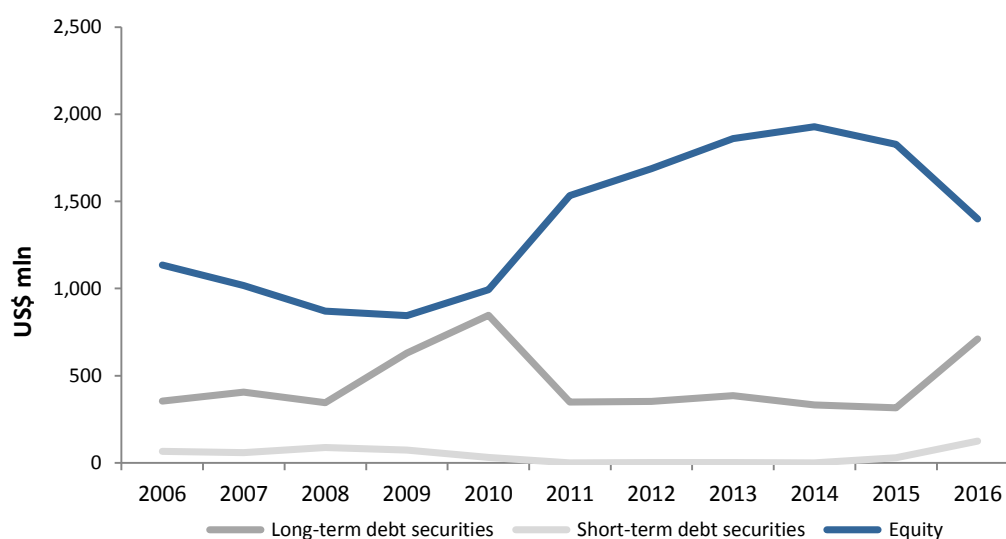


Source: IMF and Authority staff calculations

In 2016, Bermuda government foreign portfolio holdings in equity securities declined for the first time since 2009 as the amount of long-term debt securities more than doubled. Short-term debt securities also increased as the Bermuda government appear to be shifting from equity to debt securities (Figure 6.5.2).

Figure 5.5.2

Bermuda government foreign portfolio holdings trend: 2006 - 2016

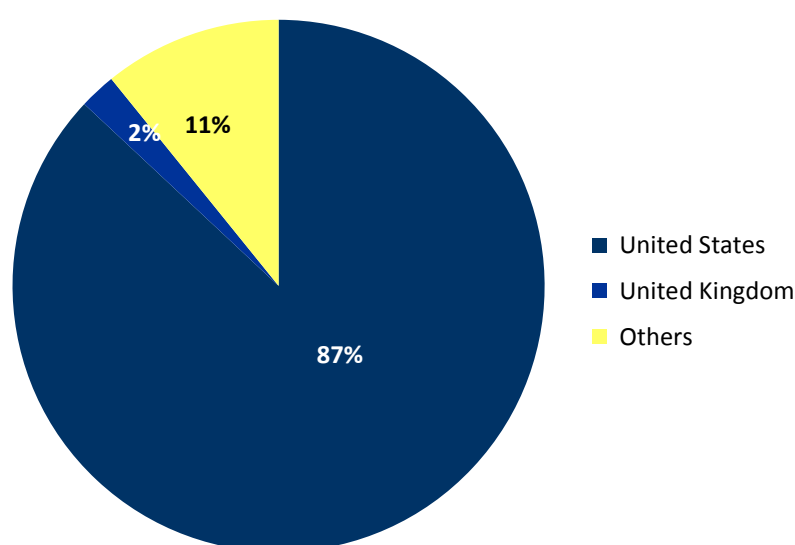


Source: IMF and Authority staff calculations

In terms of geographical distribution, the portfolio investment securities issued by United States dominate foreign portfolio holdings of the Bermuda government. At the end of 2016, portfolio investment in the United States amounted to US\$ 1,943 million, representing 87% of Bermuda government total foreign portfolio holdings. This was followed by United Kingdom which accounted US\$ 49 million, representing 2%. The rest of the countries accounted for the remaining 11% of Bermuda government foreign portfolio holdings (Figure 6.5.3).

Figure 5.5.3

Geographical distribution of Bermuda government foreign portfolio holdings - 2016



Source: IMF and Authority staff calculations

6. Bermuda Derived Liabilities

Derived liabilities highlight the value of securities from the perspective of the economy issuing the securities held by non-residents as derived from information reported by the holders of securities (creditor information)¹⁶. As of end-December 2016, the value of Bermuda's derived liabilities amounted to US\$ 520,142 million, an increase of 5% (or US\$ 26,539 million) from 2015 and somewhat similar to the 8% increase on the asset side (Table 7.1).

Table 6.1
Bermuda Derived Liabilities

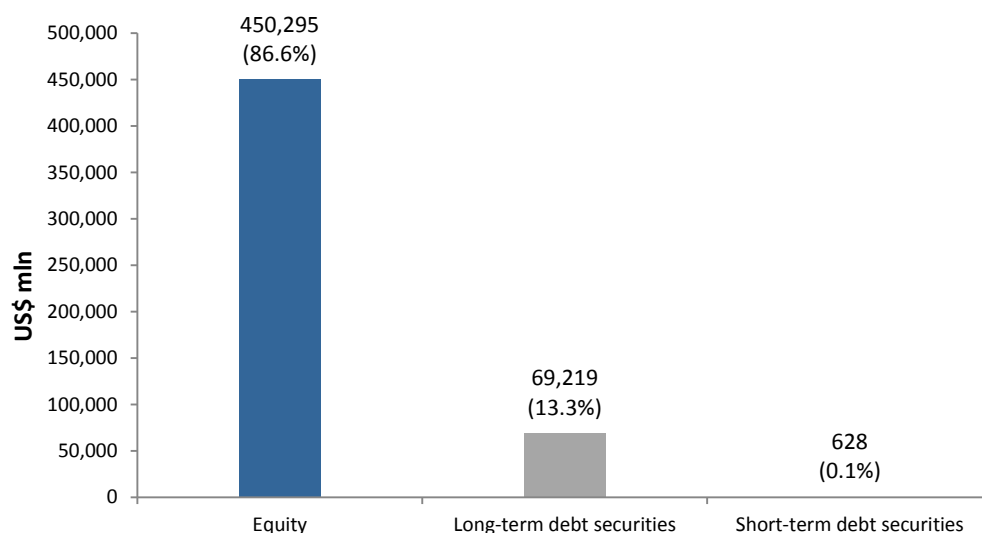
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total derived liabilities	377,949	515,857	295,395	353,780	401,769	360,045	418,311	464,046	483,252	493,603	520,142
Total derived debt securities	33,877	35,031	36,530	52,118	58,762	59,847	78,556	76,816	56,789	57,673	69,848
Total derived equity	343,976	484,000	254,408	301,826	343,142	300,353	330,311	380,212	426,655	435,775	450,295

Source: IMF and Authority staff calculations

Bermuda's derived liabilities consist mainly of equity securities. As at end-December 2016, equity securities amounted to US\$ 450,295 million, an increase of 3% (or US\$ 14,520 million) from 2015. In 2016, derived equity securities made up 87% of Bermuda's total derived liabilities. For the same period, derived debt securities amount to \$ 69,848 million, representing an increase of 21% (or US\$ 12,175 million) from 2015. Derived debt securities accounted for 13% of Bermuda's total derived liabilities in 2016. Derived debt predominately comprises of long-term debt securities which accounts for 99% (or US\$ 69,219 million) of the total derived debt securities. Short-term securities accounted for only 1% (or US\$ 628 million) (Figure 7.1).

¹⁶ The "derived liability" numbers are generated only when the sum of reported holdings of securities issued by a given country is at least US\$ 10 million.

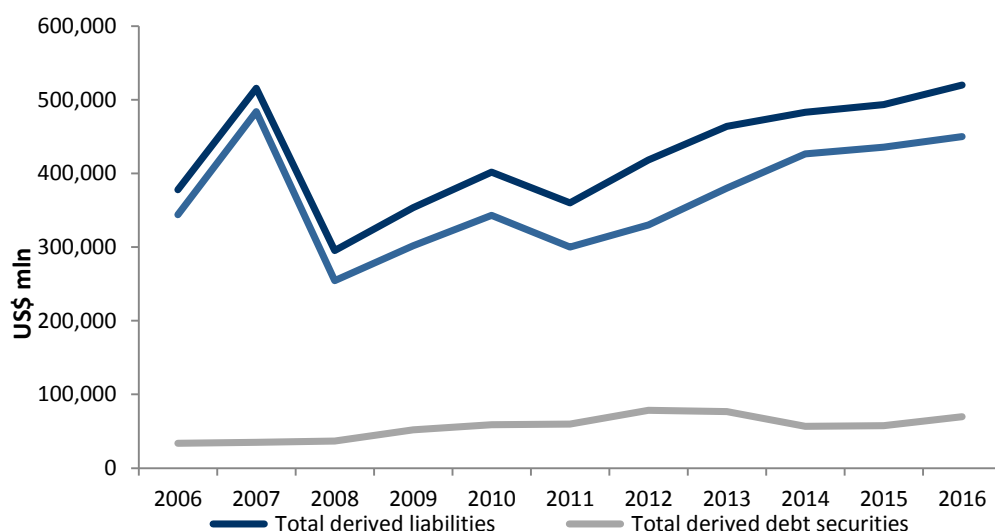
Figure 6.1
Bermuda Derived Liabilities



Source: IMF and Authority staff calculations

In line with the global trends and Bermuda's foreign portfolio holdings, Bermuda's derived liabilities experienced strong growth in the lead up to the crises, dramatically dropping in 2008 and has since then been gradually growing as it approaches pre-recession levels (Figure 7.2).

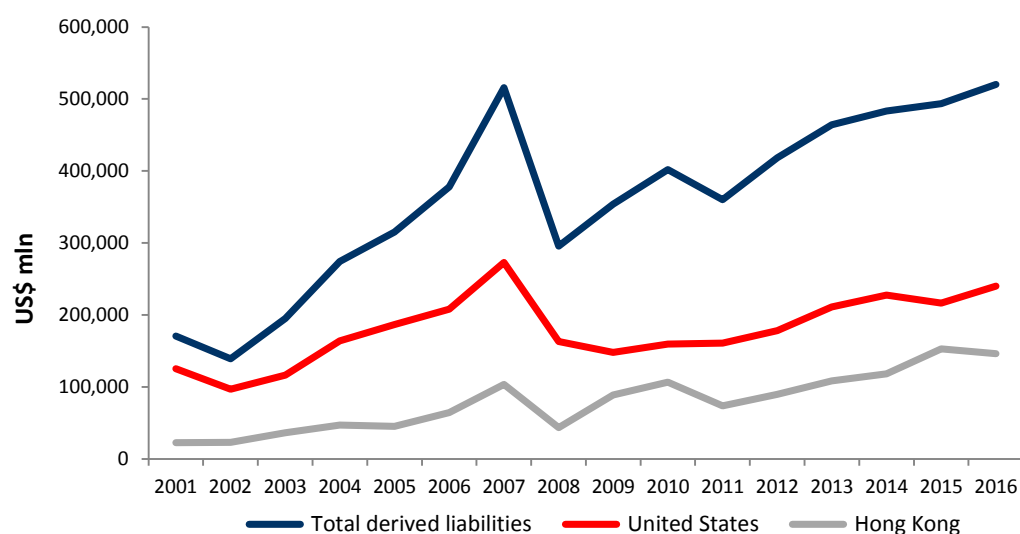
Figure 6.2
Bermuda Derived Liabilities Trends



Source: IMF and Authority staff calculations

Similar to the foreign portfolio investments, Bermuda's derived liabilities have demonstrated a relatively stable geographical distribution over the years. The two countries with the largest share have been the same since 2005. Bermuda derived liabilities are dominated by United States and Hong Kong, who together had a 74% share as at end of 2016 (Figure 7.3).

Figure 6.3
Bermuda Derived Liabilities – United States & Hong Kong share trends



Source: IMF and Authority staff calculations

Other countries which also had significant contribution to Bermuda's derived liabilities in 2016 were Luxembourg, who contributed 5% and United Kingdom and Japan with 3% each respectively. The rest of the countries had shares of less than 2% each (Table 7.2).

Table 6.2
Geographical distribution of Bermuda Derived Liabilities

2016		contribution as a percentage of total derived liabilities										
Ranking		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1	United States	55%	53%	55%	42%	40%	45%	43%	45%	47%	44%	46%
2	China, P.R.: Hong Kong	17%	20%	15%	25%	27%	20%	21%	23%	24%	31%	28%
3	Luxembourg	4%	5%	4%	5%	6%	5%	7%	5%	5%	4%	5%
4	United Kingdom	2%	3%	3%	3%	3%	4%	2%	3%	3%	2%	3%
5	Japan	4%	2%	3%	4%	5%	6%	6%	6%	5%	3%	3%
6	Netherlands	1%	1%	1%	1%	2%	1%	1%	2%	2%	2%	2%
7	Canada	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%	2%
8	South Africa	1%	1%	2%	3%	3%	4%	3%	2%	2%	2%	2%
9	Singapore	1%	1%	1%	2%	2%	2%	2%	2%	2%	2%	1%
10	Switzerland	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
	Rest of World	10%	11%	12%	12%	10%	10%	9%	9%	8%	8%	6%

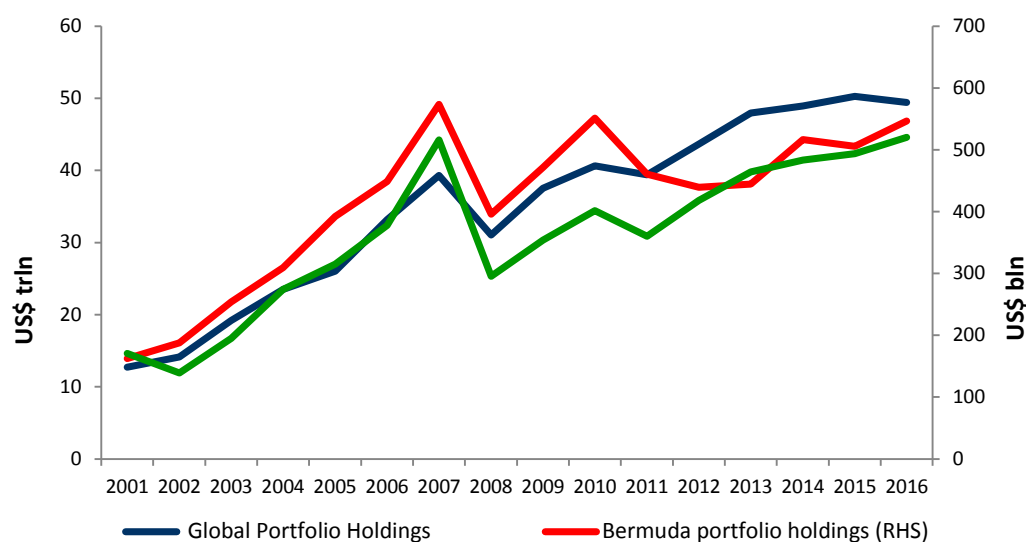
Source: IMF and Authority staff calculations

7. Global Holdings

Global cross-border holdings of securities reached US\$ 49.4¹⁷ trillion as of end-December 2016, a decrease of US\$ 0.86 trillion (or 2%) from 2015.

Figure 7.1

Portfolio holdings – All Economies: - 2001 – 2016



Source: IMF and Authority staff calculations

In terms of geographical distribution, 69% of the global total portfolio investment assets concentrated in ten economies. United States is the largest holder and issuer of portfolio investment assets. At the end of December 2016, United States foreign portfolio holdings amounted to US\$ 12,197,463 million, representing 24% of the global portfolio holdings. United Kingdom had the second largest share with holdings of US\$ 3,308,596 or 7% of the global portfolio holdings. These shares are in line with 2015 figures (Table 8.1).

Table 7.1

Geographical breakdown of total portfolio investment assets: top ten economies by Holders and Issuers

Investment In:	Investment From:										
	United States	Japan	Luxembourg	United Kingdom	Germany	France	Cayman Islands	Netherlands	China, P.R.: Hong Kong	Canada	Other
United States		1,595,299	951,086	1,075,336	364,398	255,673	1,200,683	473,853	134,070	793,370	5,353,694
United Kingdom	1,182,407	166,578	302,112		189,062	232,128	75,906	107,874	75,403	77,039	900,086
Luxembourg	134,242	99,120		101,549	550,848	340,081	15,328	93,194	58,677	12,468	1,516,633
France	482,972	252,108	361,026	202,251	359,306		35,198	179,248	10,193	33,303	996,783
Cayman Islands	1,254,358	684,228	86,436	57,754	19,044	14,117		23,592	375,142	28,526	250,703
Germany	372,832	123,469	294,266	200,214		212,441	53,056	215,459	17,457	35,534	1,215,357
Japan	861,587		123,431	263,692	23,920	98,948	68,261	52,485	50,492	60,270	437,997
Netherlands	448,078	116,360	181,761	151,937	238,844	258,758	19,056		7,483	19,565	516,655
Ireland	455,125	51,194	147,490	218,151	139,815	114,335	18,427	74,049	11,900	12,472	474,845
Canada	826,639	70,860	77,823	55,454	48,142	25,813	30,351	23,673	14,244		315,429
Other	3,743,419	718,495	1,325,507	1,241,906	1,043,407	961,431	276,855	499,874	613,898	224,396	4,630,275
Total Value of Investment	9,761,659	3,877,710	3,850,940	3,568,244	2,976,787	2,513,726	1,793,121	1,743,301	1,368,958	1,296,944	16,608,458

Source: IMF and Authority staff calculations

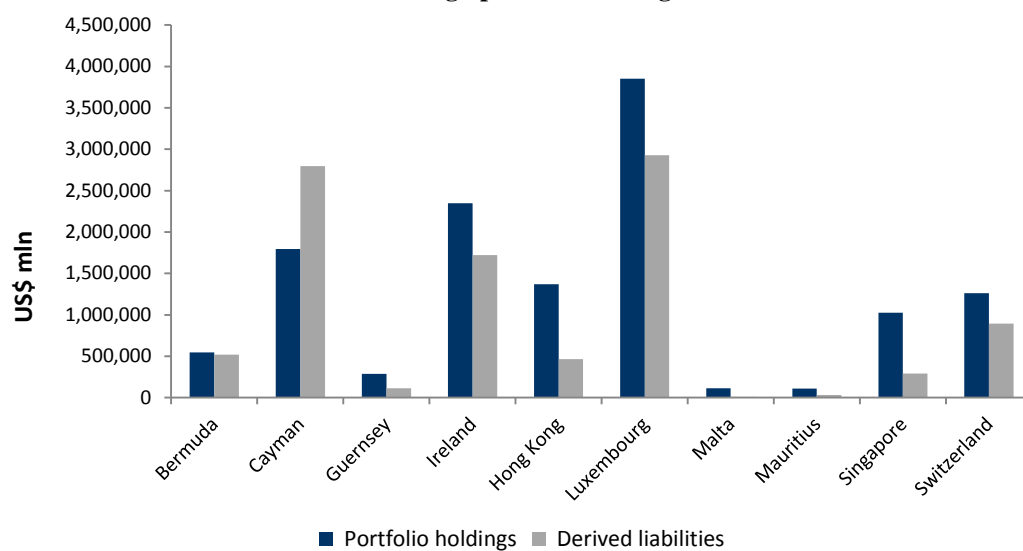
¹⁷ This number has been revised by the IMF from \$46.2 trillion to \$49.2 since the 2015 CPIS publication.

International Financial Centres (IFCs)

Foreign portfolio holdings for IFCs vary widely. This can be attributed to a number of factors including heterogeneous nature and size of the financial sectors, geographical location of IFCs and or the data collection methodology, among others.

Figure 8.2

International Financial Centres - Foreign portfolio holdings 2016



Source: IMF and Authority staff calculations

– *Ends* –

Annex A – IMF’s Frequently Asked Questions:

What is the CPIS?

The Coordinated Portfolio Investment Survey (CPIS) is a voluntary data collection exercise conducted under the auspices of the IMF. To participate, an economy provides data on its holdings of portfolio investment securities (data are separately requested for equity and investment fund shares, long-term debt instruments, and short-term debt instruments). The survey covers end-December holdings for the period 2001-2012 beginning with data for end-June 2013. The survey also covers end-June holdings. All economies are welcome to participate.

The IMF augments the data reported in the CPIS with data from two other surveys, i.e., Securities Held as Foreign Exchange Reserves (SEFER) and Securities Held by International Organizations (SSIO). SEFER provides geographic and instrument detail on securities held as reserve assets, and SSIO provides the geographic and instrument detail on securities held by international organisations. Similar to the CPIS, SEFER is conducted semi-annually starting with data for end-June 2013, whereas SSIO is conducted annually. Data from the CPIS and SSIO surveys provide comprehensive information on holdings of portfolio investment securities and together with data from the SEFER survey, the geographic detail captured in these three surveys can be used to derive estimates of portfolio investment liabilities for every economy.

In response to requests from data users, a number of enhancements to the CPIS were implemented starting with data for end-June 2013. These enhancements include increased frequency (as noted above, semi-annual CPIS data collections were implemented), improved timeliness (acceleration in both the collection and re-dissemination of data) and expanded scope (collection of data on an encouraged basis on the institutional sector of the non-resident issuer of securities; on short or negative positions; and on the institutional sector of the resident holder cross-classified by the institutional sector of selected non-resident issuers).

Are foreign direct investment positions included in the CPIS?

Foreign direct investment positions are excluded from the CPIS. However, under the international statistical standards, including the sixth edition of the *Balance of Payments and International Investment Position Manual (BPM6)* and the fourth edition of the *OECD Benchmark Definition of Foreign Direct Investment (BD4)*, debt positions between financial intermediaries (other than insurance corporations and pension funds) in a direct investment relationship are excluded from direct investment and classified instead in portfolio or other investment. In the circumstance where the data are classified in portfolio investment, the data would be in-scope of the CPIS.

Foreign direct investment is a category of cross border investment associated with a resident in one economy having control or a significant degree of influence on the management of enterprise in another economy. In practice, ownership of equity by a direct investor that entitles it to 10% or more of the voting power is used to determine a significant degree of

influence (see *BPM6*, paragraphs 6.9-6.18). Data on bilateral direct investment positions are available from the IMF's Coordinated Direct Investment Survey (CDIS).

Are loans included in the CPIS?

Generally, no, loans are financial claims where a creditor lends directly to a debtor and are evidenced by documents that are not negotiable, i.e., cannot be traded (see *BPM6* paragraph 5.51). Cross border data on loans and deposits are available in the BIS International Locational Banking Statistics database.

However, loans that have become negotiable are reclassified from loans to debt securities in which case they should be included in the CPIS. For such reclassification to occur, there should be evidence of secondary market trading, including the existence of market makers and frequent quotations of the instrument, such as provided by bid-offer spreads (see *BPM6* paragraph 5.45).

Are reserve assets included in the CPIS and how?

As noted above, economies are invited to report data on securities held as reserve assets on the IMF's SEFER survey, which is a companion survey to the CPIS. The results from SEFER are included (along with the SSIO data) in the overall CPIS results. The SEFER data reported by individual reporting economies are not separately identified; SEFER data are disseminated only at an aggregate level.

The CPIS survey itself (not SEFER) covers portfolio investment securities (as opposed to reserves) held by the monetary authorities.

Are holdings of domestic securities covered?

No. The CPIS covers cross-border positions in equity and debt securities. Securities issued and held by residents of the same economy are excluded.

Are securities that a resident holder provides to a non-resident as collateral under a repurchase agreement or a securities lending agreement included in the resident economy's CPIS?

Yes. Foreign securities that a resident holder owns and provides as collateral to a non-resident under securities repurchase agreements and securities lending agreements are treated as not having changed economic ownership. These foreign securities remain part of the resident economy's portfolio investment holdings and should be reported in the CPIS.

Are securities that a resident economy acquires from a non-resident as collateral under a reverse repurchase agreement or a securities lending agreement included in the resident economy's CPIS?

No. Securities that a resident economy acquires from a non-resident under a reverse repurchase agreement or under a securities lending agreement are not treated as having changed economic ownership. These securities remain part of the non-resident's holdings.

Why are there sometimes differences between International Investment Position (IIP) and CPIS data?

The concepts and valuation principles underlying the CPIS are the same as those contained in the *BPM6* for valuing the IIP, and so the value of portfolio investment assets in both the CPIS and the IIP should in principle be the same. For most of the CPIS-reporting economies, the datasets are consistent, with some variances arising from differences in time of recording. For a few economies, there are more substantial differences, which are sometimes due to incomplete sectorial coverage in the CPIS or different data vintages (i.e., the IIP and CPIS may be compiled at different times and so one may have more up-to-date data). For both the CPIS and IIP, portfolio investment securities should be valued at market prices. A few CPIS reporting economies do not compile IIP statistics.

Can transactions be derived from the position data in the CPIS?

Cross border securities transactions can only be derived with significant uncertainty using the CPIS data. The CPIS currently collects end-June and end-December position data. Flows are defined as the difference between beginning- and end-of-period positions; flows reflect changes that are associated with a) transactions; and b) other flows. The latter covers changes recognised analytically under three broad subcategories: other changes in volume; revaluations due to changes in exchange rates; and revaluations due to other price changes. The CPIS does not contain information to distinguish between transactions and other flows.

Do you have more detailed information that is not published?

No, all of the data reported to the IMF on the CPIS is published. However, the individual data collected on the two companion surveys (SEFER and SSIO) are reported to the IMF on a strictly confidential basis. These data are released only in aggregate form.

Why are sectoral breakdowns not available for some reporting economies?

The reporting of data by sector of holder is encouraged in the CPIS but these data are not required for an economy to participate in the CPIS. Many economies report full sectoral breakdowns, a few economies report partial sectoral breakdowns and others provide no sectoral breakdowns. The same is true of other encouraged CPIS data.

Are all economies participating in the CPIS?

No. Participation in the CPIS is voluntary. The IMF is actively working to expand participation and most significant portfolio investment holding economies participate in the CPIS.

Why are data collected from the asset side, and what does “derived liabilities” mean?

More reliable detailed cross-border positions data can usually be collected on an economy's holdings of portfolio investment because the holder (creditor) will usually know what

securities it holds. On the liabilities side, the issuer of a security (debtor) may not know the residency of the holder because the securities may be held by foreign custodians or other intermediaries. Using the assets data reported by CPIS participating economies, the IMF derives liabilities data for all economies (CPIS reporters as well as non-reporters); these data are termed “derived liabilities”. A subset of economies also report liabilities data (an encouraged item in the CPIS).

[How often are CPIS updated and revised?](#)

End-June and end-December data are collected by the IMF with a lag of about seven months after the measurement date and published within nine months after the reference date. Economies may submit revisions to previous periods’ data at any time, including when submitting data for the most recent period.

[Is more high-frequency data available?](#)

The IMF’s CPIS database is based on semi-annual data collections that began in January 2014 for the end-June 2013 observation. However, there are economies that are compiling higher or lower frequency data. Further information is available from individual economy metadata tables.

Annex B – Bermuda Portfolio Investment

Reported portfolio Investment Assets by Economy of Non-resident Issuer - 2016

Investment (US\$ mln) in:	DEC. 2006	DEC. 2007	DEC. 2008	DEC. 2009	DEC. 2010	DEC. 2011	DEC. 2012	DEC. 2013	DEC. 2014	DEC. 2015	DEC. 2016
Afghanistan, Islamic Republic of	0	0	0	0	0	0	0	0	0	0	0
Albania	0	0	0	0	0	0	0	0	0	0	0
Algeria	0	0	0	0	0	0	0	0	0	0	0
American Samoa	0	0	0	0	0	0	0	0	0	0	0
Andorra	0	0	0	0	0	0	0	0	0	0	0
Angola	0	0	0	0	0	0	0	68	4	0	0
Anguilla	0	0	0	0	0	0	0	0	0	0	0
Antigua and Barbuda	0	0	0	0	0	0	0	0	0	0	0
Argentina	0	59	34	17	95	140	71	24	340	413	385
Armenia, Republic of	0	0	0	0	0	0	0	0	2	2	2
Aruba	12	0	1	6	0	0	1	0	0	0	0
Australia	3,793	7,779	3,681	6,974	6,847	7,166	10,922	6,365	10,898	8,349	11,212
Austria	951	507	444	818	857	1,059	1,669	542	476	1,018	443
Azerbaijan, Republic of	0	0	0	0	0	0	0	0	115	13	7
Bahamas, The	1,262	1,591	111	1,227	4	0	0	1	789	68	116
Bahrain, Kingdom of	0	0	0	0	48	116	251	0	39	2	0
Bangladesh	0	255	0	0	0	0	0	0	0	23	0
Barbados	2	0	17	1	93	199	173	4,596	34	8	39
Belarus	0	0	0	0	0	0	0	0	0	0	0
Belgium	930	866	512	990	1,010	1,204	1,178	2,184	1,605	1,094	1,878
Belize	0	2	0	0	0	0	0	0	0	0	0
Benin	0	0	0	0	0	0	0	0	0	0	0
Bermuda											
Bhutan	0	0	0	0	0	0	0	0	0	0	0
Bolivia	0	0	0	0	0	0	0	0	2	0	0
Bonaire, Sint Eustatius and Saba					0	0	0	0	0	0	0
Bosnia and Herzegovina	0	0	0	0	0	0	0	0	0	0	0
Botswana	0	14	0	0	0	0	0	131	2	0	0
Brazil	70	219	202	229	1,724	4,311	4,120	1,454	1,707	647	889
British Indian Ocean Territory	0	0	0	0	0	0	0	0	3	8	0
Brunei Darussalam	0	0	0	0	0	0	0	0	0	0	0
Bulgaria	0	2	0	0	0	0	0	0	38	0	2
Burkina Faso	0	0	0	0	0	0	0	0	0	0	0
Burundi	0	0	0	0	0	0	0	0	0	0	0
Cambodia	0	0	0	0	0	0	0	0	0	0	2
Cameroon	0	0	0	0	0	0	0	0	0	0	0
Canada	4,729	7,357	5,635	22,086	10,831	13,533	11,634	10,866	27,516	19,711	31,125
Cabo Verde	0	0	0	0	105	0	0	0	0	0	0
Cayman Islands	13,090	16,479	9,971	40,679	5,429	5,451	8,474	20,070	21,064	14,727	18,867
Central African Republic	0	0	0	0	30	0	0	0	0	0	0
Chad	0	0	0	0	0	0	0	0	0	0	0
Chile	1,747	2,385	1,613	87	289	581	672	775	2,308	1,179	1,104
China, P.R.: Hong Kong	6,372	5,794	4,056	4,507	3,923	475	919	855	10,563	7,128	7,916
China, P.R.: Macao	0	0	0	0	35	0	48	0	24	8	34
China, P.R.: Mainland	1,205	946	983	4,648	2,927	618	657	1,650	4,089	3,493	2,836
Christmas Island	0	0	0	0	0	0	0	0	0	0	12
Cocos (Keeling) Islands	0	0	0	0	0	0	0	0	0	0	0
Colombia	3	4	3	8	434	1,721	1,148	1,022	662	346	315
Comoros	0	0	0	0	0	0	0	0	0	0	0
Congo, Democratic Republic of	0	0	0	0	0	0	0	0	109	0	0
Congo, Republic of	0	0	0	0	0	0	0	0	0	0	0
Cook Islands	0	0	0	0	0	0	0	0	0	0	0
Costa Rica	8	9	6	15	0	77	115	28	245	44	70
Cote d'Ivoire	0	12	0	184	160	0	50	0	140	0	12
Croatia	16	23	20	3	0	0	153	23	283	16	5
Cuba	0	0	0	0	0	0	0	0	0	0	0
Curacao					21	55	72	74	125	64	69
Curacao & St. Maarten											
Cyprus	1	14	0	0	5	17	7	0	26	9	126
Czech Republic	205	4	9	16	21	7	11	0	55	64	45
Denmark	1,218	632	475	876	1,389	926	895	269	840	814	813

Djibouti	0	0	0	0	0	0	0	0	0	0	0
Dominica	0	0	0	0	0	0	0	0	0	0	0
Dominican Republic	0	0	0	0	0	14	123	0	6	4	7
Ecuador	0	2	0	0	0	0	0	0	3	0	2
Egypt	0	1	0	132	76	38	20	540	69	24	49
El Salvador	3	0	0	0	0	3	393	0	346	4	5
Equatorial Guinea	0	0	0	0	0	0	0	0	0	0	0
Eritrea	0	0	0	0	0	0	0	0	0	0	0
Estonia	0	0	0	0	0	0	0	0	0	0	0
Ethiopia	0	0	0	0	0	0	0	0	76	0	0
Falkland Islands	0	3	0	0	0	0	0	0	0	0	0
Faroe Islands	0	0	0	0	0	0	0	0	6	0	50
Fiji	0	0	0	0	0	0	0	0	0	0	0
Finland	564	760	881	131	517	533	1,481	1,243	670	908	1,070
France	9,494	15,280	14,990	13,309	13,225	13,646	15,080	11,026	12,596	13,015	13,587
French Southern Territories	0	0	0	0	0	0	0	0	0	0	0
French Territories: French Polynesia	0	0	0	0	0	0	0	0	0	0	0
French Territories: New Caledonia	0	0	0	0	0	0	0	0	0	0	0
Gabon	0	0	0	0	53	392	199	0	75	0	2
Gambia, The	0	0	0	0	0	0	0	0	0	0	0
Georgia	0	0	0	0	0	38	0	0	6	2	6
Germany	16,827	20,702	15,822	12,321	11,667	15,583	14,320	9,254	7,320	10,174	5,779
Ghana	0	0	0	0	0	27	101	0	169	0	34
Gibraltar	0	0	6	9	5	0	637	3	116	109	0
Greece	185	64	487	631	2	0	2,615	616	73	51	7
Greenland	0	0	0	0	0	0	0	0	0	0	29
Grenada	0	0	0	0	0	0	0	0	0	0	0
Guadeloupe	0	0	0	0	0	0	0	0	0	0	0
Guam	0	0	0	0	0	0	0	0	0	0	0
Guatemala	0	0	0	0	2	83	127	0	8	0	0
Guernsey	544	89	35	1	50	41	149	92	729	908	991
Guiana, French	3	3	2	0	0	0	0	0	0	0	0
Guinea	0	0	0	0	0	0	0	0	0	0	0
Guinea-Bissau	0	0	0	0	0	0	0	0	0	0	0
Guyana	8	10	6	0	6	0	0	0	0	0	0
Haiti	0	0	0	0	0	0	0	19	0	0	0
Honduras	0	0	0	0	0	0	0	0	3	4	5
Hungary	85	38	19	14	47	10	12	26	144	60	123
Iceland	92	82	22	5	26	0	9	18	71	0	0
India	133	288	75	194	645	439	655	492	1,015	2,442	927
Indonesia	149	32	44	133	746	1,489	1,637	517	1,149	486	440
Iran, Islamic Republic of	0	0	0	0	0	0	0	0	0	0	0
Iraq	0	0	12	1	5	0	2	58	18	2	3
Ireland	4,704	6,220	6,107	5,747	5,747	4,791	12,177	13,824	20,136	9,149	7,564
Isle of Man	8	10	6	11	56	32	34	28	21	31	39
Israel	7	14	82	143	51	301	5,329	469	676	313	217
Italy	2,820	3,178	2,274	2,796	1,046	825	1,188	820	1,360	1,039	466
Jamaica	25	9	7	0	0	0	4	0	6	3	5
Japan	7,927	14,340	13,291	4,041	4,341	1,992	1,873	2,176	5,597	9,219	12,756
Jersey	412	605	406	138	310	514	1,500	642	495	579	651
Jordan	0	0	0	0	10	35	10	42	29	16	12
Kazakhstan	0	0	0	0	138	1,108	229	82	491	103	65
Kenya	0	0	0	0	0	0	0	479	109	12	46
Kiribati	0	0	0	0	0	0	0	0	0	0	0
Korea, Democratic People's Rep. of							0	0	0	0	2
Korea, Republic of	4,518	6,541	4,081	1,264	1,527	1,254	1,170	677	4,778	4,903	4,584
Kosovo, Republic of							0	0	0	0	0
Kuwait	0	0	0	0	15	19	0	81	14	13	10
Kyrgyz Republic	1	0	0	0	0	0	0	0	0	4	0
Lao People's Democratic Republic	0	0	0	0	0	0	0	0	0	0	0
Latvia	0	0	0	0	0	0	0	0	11	2	0

Lebanon	0	0	0	0	0	0	0	0	0	0	0
Liberia	25	48	17	53	48	31	2	2	0	2	-1
Lesotho	0	0	0	0	0	0	0	0	0	0	0
Libya	0	0	0	0	0	0	0	0	0	0	0
Liechtenstein	0	0	120	0	0	0	0	0	0	0	1
Lithuania	2	12	9	12	7	10	320	47	26	48	22
Luxembourg	5,268	7,005	4,059	2,387	5,684	8,507	6,963	9,338	19,563	14,862	15,368
Macedonia, FYR	0	0	0	0	0	0	0	0	2	0	1
Madagascar	0	0	0	0	0	0	0	0	0	0	0
Malawi	0	0	0	0	0	0	0	0	0	0	5
Malaysia	246	121	88	94	141	172	227	226	3,711	3,177	2,988
Maldives	1	0	0	0	0	0	0	0	0	126	1
Mali	0	5	1	0	10	0	0	0	0	13	0
Malta	0	0	246	0	0	0	0	0	261	269	276
Marshall Islands, Republic of	11	33	13	31	102	18	39	420	170	40	9
Martinique	0	0	0	0	0	0	0	0	0	0	0
Mauritania	0	0	0	0	0	0	0	0	0	0	0
Mauritius	0	0	0	0	455	1	232	62	3,632	2,628	2,286
Mayotte	0	0	0	0	0	0	0	0	0	0	0
Mexico	287	332	132	202	1,916	2,968	4,331	1,571	2,803	1,631	1,789
Micronesia, Federated States of	0	0	0	0	0	0	0	0	0	0	0
Moldova	0	0	0	0	0	0	0	0	0	0	0
Monaco	0	0	0	0	0	0	0	0	13	3	-3
Mongolia	0	0	0	0	1	0	377	29	81	0	0
Montenegro	0	0	0	0	0	0	0	0	5	0	15
Montserrat	0	0	0	0	0	0	0	0	0	0	0
Morocco	14	0	0	0	27	110	289	0	118	23	16
Mozambique	0	0	0	0	1	0	0	0	0	0	0
Myanmar	0	0	0	0	0	0	0	0	0	0	0
Namibia	0	0	0	0	0	0	0	1	1	6	4
Nauru	0	0	0	0	0	0	0	0	0	0	0
Nepal	0	0	7	15	0	0	0	0	0	0	0
Netherlands	5,486	8,727	5,737	7,862	15,381	12,947	14,762	9,790	9,727	10,164	12,979
Netherlands Antilles	100	124	72	9							
New Zealand	350	87	64	271	725	1,819	811	525	1,029	615	916
Nicaragua	0	0	0	0	0	0	0	0	0	0	0
Niger	0	0	0	0	0	0	0	0	0	0	0
Nigeria	0	0	0	0	0	0	13	72	68	16	231
Niue	0	0	0	0	0	0	0	0	0	0	0
Norfolk Island	0	0	0	3	0	0	0	0	0	0	0
Norway	537	1,016	834	761	1,124	2,065	3,285	2,197	2,708	2,472	2,946
Oman	0	0	0	0	0	0	0	0	17	8	11
Pakistan	14	0	0	0	0	0	0	394	4	93	0
Palau	0	0	0	0	0	0	0	0	0	0	0
Panama	5	20	39	21	242	748	602	194	437	335	156
Papua New Guinea	3	49	58	9	45	0	0	0	5	0	5
Paraguay	0	0	0	0	0	0	112	0	59	2	36
Peru	3	0	1	4	274	1,120	689	160	406	260	239
Philippines	39	43	28	135	179	1,366	714	429	179	183	146
Pitcairn Islands	0	0	0	0	0	0	0	0	0	0	0
Poland	11	52	60	46	316	334	93	161	259	189	184
Portugal	35	30	207	449	70	31	0	0	150	26	38
Puerto Rico	5	10	30	3	5	269	100	33	17	16	79
Qatar	4	5	7	161	592	1,174	823	706	670	457	463
Reunion	0	0	0	0	0	0	0	0	0	0	0
Romania	90	119	0	3	12	30	212	50	100	65	73
Russian Federation	583	381	87	175	527	1,593	908	1,184	310	1,282	1,074
Rwanda	0	0	0	0	0	0	0	0	0	2	10
Saint Helena	0	0	0	0	0	0	0	0	0	0	0
Saint Pierre and Miquelon	0	2	2	0	6	0	0	0	0	0	0
Samoa	0	0	0	0	0	0	0	0	0	0	0
San Marino	0	0	0	0	0	0	0	0	0	0	0

Sao Tome and Principe	0	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	0	1	0	1	3	43	2	0	51	26	103
Senegal	0	0	0	0	0	43	332	0	187	0	5
Serbia, Republic of	0	0	0	0	0	7	47	0	12	2	20
Seychelles	0	0	0	0	0	0	0	0	6	0	0
Sierra Leone	0	0	1	3	0	0	0	0	0	0	0
Singapore	1,726	1,701	1,158	1,622	1,231	742	779	3,049	5,479	3,335	4,328
Sint Maarten					0	0	0	0	0	0	0
Slovak Republic	0	0	9	0	5	0	0	1	3	6	14
Slovenia	0	0	0	0	13	137	59	0	607	55	63
Solomon Islands	0	0	0	0	0	0	0	0	0	0	0
Somalia	0	0	0	0	0	0	0	0	0	0	0
South Africa	917	1,047	652	105	339	943	1,319	288	837	475	438
South Sudan							0	0	0	0	0
Spain	1,009	1,007	1,452	2,415	1,321	1,874	1,138	494	1,573	1,154	572
Sri Lanka	0	94	0	0	0	425	48	116	258	26	9
St. Kitts and Nevis	0	0	0	0	0	0	0	0	0	0	0
St. Lucia	0	0	0	1	0	0	0	1	0	0	0
St. Vincent and the Grenadines	0	0	0	0	0	0	0	3	0	0	0
Sudan	0	0	0	0	0	0	0	0	0	0	0
Suriname	9	0	0	0	0	0	0	0	0	3	3
Swaziland	0	57	1	3	0	0	0	0	0	0	0
Sweden	4,013	2,740	2,595	1,832	6,450	1,710	9,794	2,325	3,132	3,329	3,908
Switzerland	1,493	1,671	1,836	1,594	2,632	1,911	2,054	2,573	2,722	2,276	2,366
Syrian Arab Republic	0	0	0	0	0	0	0	0	0	0	0
Taiwan Province of China	1,063	372	233	622	502	105	191	685	545	759	786
Tajikistan	0	0	0	0	0	0	0	0	0	0	0
Tanzania	0	0	0	0	0	0	6	236	46	14	7
Thailand	132	90	47	117	224	97	124	58	506	385	371
Timor-Leste, Dem. Rep. of	0	0	0	0	0	0	0	0	0	0	0
Togo	0	0	0	0	0	0	0	0	0	0	0
Tokelau Islands	0	5	4	0	6	0	0	0	0	0	0
Tonga	0	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	10	13	11	0	74	145	36	0	44	4	30
Tunisia	0	0	0	0	43	73	1,630	0	69	2	5
Turkey	5	28	12	13	431	1,611	95	219	710	337	163
Turkmenistan	0	0	0	0	10	0	0	0	0	0	0
Turks and Caicos Islands	0	0	0	0	0	0	0	0	0	0	0
Tuvalu	0	0	0	0	0	0	0	0	0	0	0
Uganda	0	0	0	0	0	0	35	0	0	0	10
Ukraine	0	6	1	1	3	31	178	141	251	18	30
United Arab Emirates	28	111	73	138	969	445	5,699	1,301	1,339	944	1,088
United Kingdom	52,440	59,044	25,172	19,801	36,547	30,276	62,796	26,317	25,324	36,315	33,548
United States	282,094	365,848	259,277	300,363	391,810	290,935	202,338	274,228	268,424	293,799	314,304
Uruguay	3	2	1	1	194	580	45	0	238	46	48
US Pacific Islands	0	0	0	3	0	48	48	0	0	41	0
US Virgin Islands	9	0	0	0	0	0	0	2	5	1	0
Uzbekistan	0	0	0	0	0	0	0	0	0	0	0
Vanuatu	0	0	0	0	0	0	0	0	0	0	0
Vatican	0	0	0	0	0	0	0	0	0	0	0
Venezuela, Republica Bolivariana de	3	8	7	6	302	704	59	0	263	19	11
Vietnam	0	2	1	3	0	0	619	0	47	31	28
Virgin Islands, British	2,788	3,553	177	1,236	284	282	272	3,127	8,678	5,565	7,216
Wallis and Futuna	0	0	0	0	0	0	0	0	0	0	0
West Bank and Gaza	0	0	0	0	0	0	0	0	0	0	0
Western Sahara	0	0	0	0	0	0	0	0	0	0	0
Yemen, Republic of	0	0	0	0	0	0	0	0	0	0	0
Zambia	0	0	0	0	-1	0	0	0	82	0	41
Zimbabwe	0	0	0	0	0	0	774	77	6	0	84
Not Specified (including Confidential)	1,874	2,794	3,239	2,623	815	614	5,207	2,966	1,576	441	933
International Organizations	1,799	2,066	1,764	1,928	2,352	10,405	3,590	4,628	4,271	4,406	5,678
Total Value of Investment	448,661	573,708	396,069	471,535	551,045	460,362	439,533	444,649	516,317	505,656	546,429

Annex C – Bermuda Derived Liabilities

Derived Portfolio Investment liabilities by Economy of Non-resident Holder - 2016

Investment (US\$ mln) in:	DEC. 2006	DEC. 2007	DEC. 2008	DEC. 2009	DEC. 2010	DEC. 2011	DEC. 2012	DEC. 2013	DEC. 2014	DEC. 2015	DEC. 2016
Albania											
Argentina	0	0	2	0	0	0	0	0	0	0	0
Aruba		1	1	2	2	1	1	2	3	3	
Australia	C	C	2,524	3,705	3,531	3,308	3,833	4,264	4,431	C	C
Austria	840	980	601	478	536	322	306	288	221	160	186
Bahamas, The	37	5	26	22	51	30	13	13	19		
Bahrain, Kingdom of	41	183	148	74	65	92	57	83	80	93	
Bangladesh											
Barbados	25	21	31	14	102	57	33	367	40	397	
Belarus									0	0	0
Belgium	1,253	2,072	1,237	712	961	843	1,030	1,190	1,126	907	960
Bermuda											
Bolivia											
Brazil	871	3,177	803	2,813	3,112	2,658	3,093	2,999	1,560	1,492	1,584
Bulgaria	0	0	0	0	8	2	2	2	2	0	0
Canada	7,823	10,101	6,178	7,736	10,190	9,428	10,769	10,174	8,890	8,989	9,933
Cayman Islands	217	171	9	8	4	9	63	5	67	3,630	7,723
Chile	1	3	0	0	0	43	11	15	60	56	
China, P.R.: Hong Kong	64,410	103,286	43,410	88,864	106,487	73,525	89,574	108,339	118,350	152,687	146,275
China, P.R.: Macao	212	429	206	549	665	533	659	848	806	1,026	876
China, P.R.: Mainland										1,318	1,500
Colombia	1	0			0	0	0	0	0	0	0
Costa Rica	0	2		0	0	1	0	0	0	0	1
Curacao and Sint Maarten					67	185	68	52	52	61	
Cyprus	57	67	10	19	43	69	26	9	83	75	52
Czech Republic	48	78	33	79	184	69	81	76	64	50	43
Denmark	1,188	1,792	984	1,192	1,639	1,473	1,428	1,807	1,771	1,557	1,775
Egypt			0	0	0	0			0	0	
Estonia	6	11	2	0	12	6	3	10	4	2	2
Finland	448	684	1,232	1,449	1,302	962	1,047	1,264	796	578	681
France	9,710	13,906	9,297	7,890	7,274	4,872	4,031	2,699	2,317	1,994	2,196
Germany	3,333	3,386	1,734	2,017	2,444	2,091	2,320	3,224	3,257	3,126	3,431
Gibraltar	2	26				2	6	7	11	4	191
Greece	63	53	33	12	20	10	12	15	12	8	4
Guernsey	3,362	4,570	2,309	3,027	4,017	3,718	3,261	2,910	3,119	2,446	1,978
Honduras											0
Hungary	11	2	2	4	37	7	6	7	16	5	4
Iceland	15	26	23	1	17	15	16	19	15	0	0
India						96	207	225	220	4	4
Indonesia		4	8	9	16	13	1	21	66	1	0
Ireland	4,340	5,949	4,640	6,406	6,347	5,742	5,433	7,527	8,890	8,634	
Isle of Man	582	1,006	773	706	660	653	626	694	156	150	491
Israel	15	8	17	36	37	74	76	24	4	6	6
Italy	5,517	5,302	1,022	819	926	715	543	511	585	490	481
Japan	14,233	12,633	10,138	13,871	18,818	19,942	26,864	26,198	22,154	16,511	16,775
Jersey	881	1,076	289	330	368	336	193	132	137	652	417
Kazakhstan	17	17	12	3	4	12	11	50	16	13	39
Korea, Republic of	112	364	85	833	914	642	541	590	625	462	519
Kosovo					0	0	0	0	0	0	0
Kuwait	77	167	147	166	94	53	48	21			0
Latvia	1	1	3	0	3	1	1	6	6	8	8
Lebanon	2	8	3	9	6	9	22	15	24	23	19
Liberia											
Lithuania				1	4	2	3	3	4	3	3
Luxembourg	15,151	23,845	12,024	16,948	23,298	18,306	29,388	24,740	24,669	21,090	25,314
Macedonia, FYR											0
Malaysia	125	217	80	138	150	162	252	422	401	410	307
Malta							3		C	117	7
Mauritius	13	725	766	839	63	47	904	1,081	11	92	117

Mexico				0				1		4		3
Mongolia												
Netherlands	5,060	5,213	3,563	5,059	6,259	5,026	6,184	7,501	8,468	8,648		9,989
Netherlands Antilles	1,064	1,243	318	77								
New Zealand			0	0	0	C	108	C		C		C
Norway	2,315	3,633	2,376	3,797	4,140	3,724	4,581	4,796	2,893	3,549		3,708
Pakistan	1	0	0	0	0	1	1	0	0	0		0
Palau												
Panama	1	0	1	1	4	16	15	17	10	10		6
Peru										1		239
Philippines	0	71	0	0		0	3	29	2	0		1
Poland	97	104	31	0	22	5	2	1	9	C		17
Portugal	179	158	135	117	46	30	24	19	50	156		166
Romania	0	0	0			0	0	6	1	0		0
Russian Federation	60	51	85	108	153	194	168	256	65	83		247
Saudi Arabia								38	17	366		86
Singapore	4,946	7,373	3,993	6,625	7,068	5,912	9,412	8,412	7,884	8,119		6,673
Slovak Republic	2	1	0					0	1	1		0
Slovenia				6	10	7	4	2	1	0		2
South Africa	4,433	6,126	4,574	10,475	12,164	13,142	14,146	9,647	9,851	7,932		8,241
Spain	301	687	502	423	324	245	176	C	268	194		242
Sweden	2,108	2,411	1,759	2,381	1,269	2,468	3,537	2,069	2,463	2,532		2,232
Switzerland	4,823	5,152	3,868	3,248	4,030	3,729	4,462	4,984	5,523	5,035		5,904
Thailand	0	0	12	16	18	20	25	24	259	202		306
Turkey				0	0	1	0	1	1	0		0
Ukraine												
United Kingdom	9,447	14,292	10,190	11,696	12,205	13,456	10,194	12,084	12,772	10,732		17,619
United States	208,050	272,968	163,128	147,962	159,545	160,894	178,344	211,126	227,490	216,632		239,975
Uruguay	21	19	16	6	38	41	63	82	82	75		
Vanuatu												
Venezuela, República Bolivariana de		0	0	0	0	0						
West Bank and Gaza												
SEFER + SSIO (**)	C	C	C	C	C	C	C	C	C	C		581
Value of Total Investment	377,949	515,857	295,395	353,780	401,769	360,045	418,311	464,046	483,252	493,603		520,142