

**U.S. – Bermuda Economic Relations:
Economic Impact Study- 2011**

**Prepared Exclusively for
Business Bermuda
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U.S.- BERMUDA ECONOMIC RELATIONS: ECONOMIC IMPACT STUDY 2011

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I. Executive Summary

The overall economic relationship between Bermuda and the United States continued to expand through the 2000s. The relationship even strengthened during the most recent global economic crisis as Bermuda continues to offer economic advantages that met U.S. business needs and expanded employment opportunities.

By the end of 2010, two-way trade in services between Bermuda and the United States grew to more than \$80 billion. In fact, as many offshore financial centers suffered setbacks vis-a-vis the United States between 2008 and 2010, Bermuda became more prominent in the United States relative to other foreign trading partners. Among other developments by 2010, Bermuda became the leading supplier of reinsurance to the United States and the leading export market for the U.S. primary insurance sector. U.S. exports of R&D and testing services to Bermuda companies grew by \$2 billion during the recession. In 2010, Bermuda was the:

- The most important export market for U.S. insurance services.
- The 8th largest investor in the United States
- The most important foreign supplier of insurance and reinsurance to the United States, averaging \$20 billion annually in payments or as much as \$35 billion annually in recovered losses.
- 5th largest U.S. export market for banking and investment funds.
- 8th largest U.S. export market for shipping services.
- 11th largest US export market for business services.
- 14th largest market for all U.S. services exports, excluding royalties and service fees.
- 10th largest portfolio capital investor.
- 4th largest investor in U.S. government bonds.

Bermuda's prominent position in the U.S. marketplace, particularly in insurance has been growing for years and is due to a host of advantages, such as,

- Proximity to U.S financial and capital markets;
- U.K. and U.S.-compatible law and regulation; and
- Extensive financial regulatory cooperation as well as high regulatory quality.

But its growth during the recession and financial crisis shows that Bermuda's economic independence from larger global financial centers and concentration in niche risk insurance sectors that were not correlated with the global financial

downturn, bestowed a competitive capacity that made it the U.S.'s most important insurance service trading partner.

U.S./Bermuda Cross-Border Trade. In 2010, estimated total two-way trade and multinational corporation subsidiary sales between Bermuda and the U.S. was almost \$80 billion. Bermuda and U.S. company affiliates invested in each others markets supplying about \$43 billion in sales of its subsidiaries in the United States as well as \$35 billion of U.S. exports and imports with Bermuda. Bermuda's trade and investment relationship with the United States sustained 300,000 jobs in 2010.

- 101,000 U.S. jobs were created by annual U.S. exports to Bermuda.
- 200,000 U.S. jobs derived from U.S. majority-owned affiliates of Bermuda companies.

Insurance and Reinsurance. The Bermuda insurance industry, and the professional services that support that sector, are the leading foreign sources of insurance and reinsurance services to the U.S.

Bermuda's captive commercial liability insurance and reinsurance sector fills an important capacity shortage for U.S. companies.

- Approximately 75 percent of the 500 leading companies in the U.S. have captive insurance subsidiaries in Bermuda, which help provide worker's compensation and other lines of liability coverage.

International Money Management and Investment Funds. Over the last 10 years, Bermuda has evolved into a significant international financial center, with important ties to the U.S. investment community.

- In 2008, Bermuda had more than 1,100 domiciled and regulated investment funds with almost \$200 billion in net assets.
- Although difficult to estimate, it appears that U.S.-owned corporate and tax exempt funds accounted for as much as \$70 billion of these assets, and U.S. individuals' account for another \$30 billion. Most of these Bermudian investments are U.S. offshore funds established by U.S. money managers.
- Bermuda provides key advantages to U.S. money managers to attract non-U.S. investors to their funds due to its proximity to the U.S., lower costs, sophisticated infrastructure, favorable tax structure and its effective and respected regulatory framework.

In turn, Bermuda is tied for tenth place as the largest foreign portfolio investor in U.S. securities, its portfolio investment doubling to \$200 billion from 2000 to 2008. Furthermore, Bermudian investors are the 15th largest holders of U.S. government agency asset-backed bonds.

Shipping. Bermuda is a major contributor to U.S. energy security.

- Bermuda-domiciled shipping companies provide \$1.1 billion in energy-related shipping services (oil tankers, oil rigs and LNG ships) that are designed to work with existing U.S. refineries, ports, and pipelines.
- Ships register in Bermuda to take advantage of its regulatory policies, access to fleet financing, and access to environmental liability insurance coverage that is compliant with U.S. requirements under the U.S. Oil Pollution Act of 1990.

Bermuda's Holding Companies. U.S. operating companies continued to domicile in Bermuda. Companies like Freescale, Marvell, Contel, AOSL, and Chipmos, to name a few "fables" chip companies, were formerly U.S. companies and redomiciled to Bermuda since 2006. Today, these Bermuda semiconductor manufacturing companies employ 30,000 U.S. workers in manufacturing and sales. Since 2008, these companies created more than \$3 billion of service-based export business to Bermuda in testing and R&D services creating more U.S. jobs. During the 2000s more than 500 Asian companies followed this new multinational governance model and domiciled their companies in Bermuda to support their U.S.-Asian business model. Bermuda has become an important component of how global "holding company" multinationals rely on U.S. jobs as well as related Asian operations. Bermuda governance and investment environment contributes to the competitiveness of U.S. business investment, where a U.S. multinational or an Asian multinational would simply not perform as well.

II. Overview of Bermuda's Economy

This impact study analyzes the international economic relationship between the United States and Bermuda, specifically as it pertains to cross-border trade and investment between the two countries. The study updates an earlier version prepared for the Business Bermuda in the summer of 2010. At that time, that study only had access to statistics that predated the 2008/2009 global financial crisis and related economic recession. Because the economic crisis particularly affected financial sectors like investment funds and banking and because the ongoing economic crisis centered on the United States, Bermuda and its international business community could have been greatly affected, particularly as to its competitive position as a financial center. This impact study includes data into 2010 and therefore strives to analyze the Bermuda/United States economic relationship during the three years of economic crisis. It finds the Bermuda-United States economic relationship remarkably resilient.

Before delving into the specifics of the Bermuda-U.S. relationship, a broad overview of Bermuda's economy, along with its legal and regulatory framework, is useful.

Economy. The Bermuda economy has been adversely affected by the global economic crisis. For 2010, Bermuda's national gross domestic product (GDP) likely contracted to a level of \$5.4 billion for a three year decline of about 11.0% from the \$6.1 billion level of output for 2008.

Notwithstanding these grim economic trends for the domestic Bermuda economy, the bilateral economic relationship between the United States and Bermuda summarized in this report reached nearly \$80 billion in bilateral output and after three years of severe economic challenges remains stronger than in 2008. Bermuda's international economic activity has generally produced a lot of economic output. And certainly some sectors have contracted since 2008. But overall, Bermuda's offshore relations with the United expanded in the last three years. Part of this has to do with how the international sector both in Bermuda and the United States adapted to the economic crisis. Because the bulk of economic activity in Bermuda - upon which the United States relationship depends - is not consumer-related and concentrates in wholesale finance, energy shipping and professional services, overall levels of international economic activity have not only recovered by 2010 but expanded. But it is also the case that Bermuda-domiciled holding companies expanded investment in the United States and now Bermuda is the eighth largest national investor in the U.S. economy.

Legal and Regulatory Environment. The quality and reliability of Bermuda's regulatory structure, coupled with its proximity to the United States and common language, make Bermuda a valuable international partner for the United States. Furthermore, Bermuda's commercial law environment reflects the country's close relationships with the U.K. and the United States, and thus offers familiarity and predictability to the international business community. It is likely that U.S. and Asian investors particularly, Taiwan, Hong Kong, China and Singapore have found the security of a Bermuda domiciled holding company a secure way to organize a multinational investment between China and the United States.

Bermuda's long interdependence with the United States and the United Kingdom gives it both economic and political stability that attracts business interests seeking an international business platform allowing easy mobility of portfolio and capital investment. Bermuda's financial regulatory bodies and the Bermudian government moved quickly in response the 2007 and 2008 global financial crisis to reassure foreign investors and their governments that regulatory standards were stable and transparent.

Bermuda has entered into a set of treaties with the United States that offer protection to investors and intermediaries in international financial services. For instance, Bermuda has a Mutual Legal Assistance Treaty (MLAT) with the U.S. focused on the prevention of tax fraud and the evasion of taxes. MLAT allows U.S. and Bermuda authorities to request and obtain assistance from each other in criminal investigations and prosecutions and related proceedings.

Bermuda has formalized signed Tax Information Exchange Agreements (TIEA) with tens of countries, including the United States, United Kingdom, Germany, France Japan and India. Moreover, Bermuda has also concluded TIEA negotiations with Canada and others. As such, Bermuda complies with the standards of the G20 Tax Initiative and OECD standards. It recently signed a Double Taxation Agreement with Bahrain. The U.S. agreement was signed in 1988. The TIEA allows the governments to obtain requested information from banks and trustees, regardless of whether any crime has been committed, and without the knowledge of the subject of an investigation or any requirement for a court order.

Bermuda has built an important, and sometimes preeminent, relationship with the United States in key areas of the U.S. economy. The following chapters describe Bermuda's contribution and impact on key sectors in the U.S. economy.

III. U.S. Cross Border Trade in Goods and Services

Bermuda and the United States have a substantial bilateral economic relationship, amounting to \$60 billion in 2008 and increasing to nearly \$78 billion in 2010.¹ The bulk of the U.S./Bermuda economic relationship is in the export and import of financial and non-financial services – including equally both cross-border and services delivered through U.S. subsidiaries of companies headquartered in Bermuda. In 2010, U.S. cross-border service exports to Bermuda amounted to almost \$10 billion, and U.S. imports from Bermuda were \$24 billion.

In terms of goods, Bermuda relies on American exports for a broad range of manufactured goods – ranging from food to aircraft – to sustain its economy. In fact, the United States is Bermuda's largest trading partner, exporting \$636 million of manufactures to the island in 2010. We estimate that Bermuda-U.S. economic relationship covering trade in goods and services as well as sales of services in the United States sustained more than 296,000 U.S. jobs per year

Bermuda is an important economic partner for the United States, as the rankings of cross border trade demonstrates below. In 2010, Bermuda was:

- The most important foreign supplier of insurance and reinsurance to the United States, averaging \$20 billion annually in payments and as much as \$35 billion annually in recovered losses.
- 8th largest investor in the United States.
- 9th largest U.S. export market for banking and investment funds.
- The largest U.S. export market for insurance receipts.
- 8th largest U.S. export market for shipping services.
- 11th largest US export market for business services (mostly testing and accounting)
- 14th largest market for all U.S. services exports, excluding royalties and service fees.

¹ 2009 is the most recent year that the United States government collects and publishes complete international data on trade and investment between Bermuda and the United States. 2010 estimates were undertaken by Albright Stonebridge Group accounting for the economic crisis and signs of recovery. The \$78 billion includes estimated \$40 billion of two-way sales of services of majority-owned affiliates for Bermudian and US multinationals, \$24 billion in cross border trade in services and \$1 billion in export of goods. In 2008, U.S. government estimates established the level of financial services trade and investment with Bermuda for the first time. (Previous estimates did not account for traded banking services.)

- 10th or 11th largest portfolio investor in the United States.
- 4th largest investor in U.S. government bonds and 7th largest holder of US Treasuries.
- 12th largest U.S. export market for business and professional services.

Table 1 illustrates Bermuda's importance as a trading partner in services with the United States and is the basis for the summary rankings noted above. This table shows that Bermuda stands among the United States' major export markets including the United Kingdom, Canada and Japan.

Bermuda's relative ranking has been growing over time because, in some instances, certain countries declined in their significance relative to Bermuda and other times because Bermuda expanded its economic significance substantially. Overall, Bermuda ranks as the 11th most important export market for the United States in cross border services trade in 2010 compared with being 26th most important in 2000. Due to the global recession in 2008 and 2009, Bermuda moved up from 4th most important insurance services export market to being equal to Canada in this sector. This is due to the steep decline of U.S. exports to the UK and Japan since 2008. The Bermuda market comprised of business-related insurance held steady. It is also noteworthy that Bermuda's substantial international business and financial sectors draw substantial exports of U.S. business and professional services. In 2010, Bermuda became the 12th most important export market for US business and professional services (including testing, accounting and legal services compared to ranking 18th in 2007.)

Table 1: Country Ranking of Leading U.S. Trade Partners by Category of U.S. Trade in Private Services: 2009*
(Millions of U.S. Dollars)

Country	Total U.S.(X)	Insurance (X)	Ocean Transport (M)**	Finance (X)	Business& Professional Services (X)
Global U.S. Trade	483,869	14,651	21,633	55,446	116,629
UK	51,042	1,546	681	10,483	13,078
Canada	42,005	2,619	258	3,989	7,635
Japan	40,869	1,519	2950	3,063	9,792
Germany	24,271	405	1801	1,770	6143
Mexico	21,827	549	7	1,052	4,013
Ireland	25,339	422	15	795	7,876
France	16,252	317	670	2,017	4,057
China	15,661	70	1091	1,022	3,715
Netherlands	11,833	57	274	1,953	4,386
Switzerland	17,540	687	1218	1,128	4,888
Bermuda	9,523	2,615	828	1,423	3,561

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, October 2010

Notes: Switzerland, Norway, Korea and Taiwan are also leading suppliers of ocean transport shipping services.

*U.S. Receipts, except Ocean Transport Shipping which are U.S. Payments.

** (X)=Exports and (M) =Imports

Table 2 summarizes foreign investment in U.S financial instruments by country. As the table illustrates, Japan and China are leading investors in U.S. long term (LT) and short term (ST) securities, and in 2009 held large amounts of U.S. government instruments like Treasury bonds and other U.S. government agency bonds. Bermudian entities are major investors in U.S. securities, ranking 11th in global commitment to the United States as an investor in securities. As will be discussed later in this study, Bermuda investors are investment funds and insurance companies that source their funds from U.S. insurance receipts, U.S. investors, and foreign (neither Bermudian nor U.S.) investors. These investors tend to purchase certain types of assets as dictated by investment strategies and U.S. government securities represent a relatively substantial position. Besides the size of Bermuda's investment position in the United States, it is also significant for the United States that Bermuda helps to diversify U.S. security holdings from the BRICs and large trade surplus countries.

Table 2: Country Ranking of Leading Foreign Holders of U.S. Securities: 2010
(Billions of U.S. Dollars)

Country	U.S. LT Treasuries	Other U.S.G. Bonds	All LT ST Debt & Equity
China	1108	360	1611
Japan	737	134	1393
UK	72	10	798
Cayman Islands	36	32	743
Luxembourg	49	18	622
Belgium	31	10	408
Ireland	27	33	356
Canada	29	4	424
Switzerland	87	13	397
Hong Kong	60	95	293
Bermuda	42	42	249

Source: U.S. Treasury, Treasury International Capital System, August 2011 summarizing U.S. position on June 30, 2010.

Overall foreign holdings of U.S. debt and equity financial investments recovered in 2010 to \$10.7 trillion compared to \$10.3 trillion in 2008 and \$9.7 trillion in 2009, even though non-official offshore holdings remained below 2008 levels. In Table 3 it can be seen that Bermuda's holdings, however, remained steady across all classes of portfolio investment in the United States and overall ranked 11th most important country origin of investment overall and 4th most important in holdings of government agency bonds and other government agency instruments. The steady nature of investment in the United States from Bermuda - even as the rest of the world showed some volatility - likely reflects the conservative nature of insurance companies in how they manage their investment portfolios. But also, it reflects the long-term relationship between Bermuda investment funds and large depositors like U.S. pension funds that can increase their tax free yields on investments only by investing in a foreign income tax free country like Bermuda. U.S. pension funds and other legally tax-exempt entities are likely seeking the security of US guaranteed agency bonds purchased from Bermuda and qualifying for tax exemptions on unrelated business income (UBI) under the US IRS code.

**Table 3: Levels of Total Foreign Holdings of US Securities
by Offshore Investment Jurisdiction : 2004-2010
(Billions of U.S. Dollars)**

Year	Bermuda	United Kingdom	Cayman Is.	Hong Kong	Ireland	TTL Non-Off
2004	180	488	376	69	164	2500
2007	238	921	740	138	342	7000
2008	210	864	632	147	400	7000
2009	199	788	650	222	348	5700
2010	249	798	743	293	356	6300

Source: U.S. Treasury, Treasury International Capital System, August 2011 summarizing U.S. positions between June 30, 2004 and June 30, 2010.

Trade in Merchandise Goods. As a small island economy that is not self-sufficient to meet its manufactured needs, Bermuda depends on exports of merchandise goods from the United States. As summarized in Table 4, in 2010, the United States exported about \$636 million in manufactured goods to Bermuda and enjoyed an average bilateral trade surplus of \$500 million for the last ten years. The chief U.S. exports are private and business jets made or finished in Little Rock, Arkansas and Wichita, Kansas. U.S. aircraft exports to Bermuda have grown steadily since 2004 and amount to more than \$150 million a year. The United States exports close to \$45 million worth of computers, telecommunications equipment and consumer electronics to Bermuda annually. The remaining exports -- ranging from food products to gasoline to apparel -- supply 75% of Bermuda's total import demand.

**Table4: U.S. and Bermuda Exports, Imports and Balance of Trade in Goods: 2010
(Millions of U.S. Dollars)**

Year	U.S. Exports	U.S. Imports	Balance
1992	242.3	6.7	235.6
1995	298.5	10.4	288.1
2000	428.5	39.0	389.5
2005	490.5	87.3	403.2
2006	637.6	16.1	621.5
2007	660.0	23.7	636.3
2008	821.0	140.0	681.0
2009	807.0	13.0	794.0
2010	636.5	22.5	614.1

Source: U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade.

Cross-Border Trade in Services. Bermuda is a major purchaser of U.S. services exports, particularly in financial sectors like investment and insurance, and also in business services like testing, R&D, accountancy and legal advice. In 2010, the United States exported almost \$10 billion in private sector-generated services to Bermuda. According to the U.S. Department of Commerce, Bermuda ranked as a leading destination for U.S. services exports beginning in 2002 and has grown rapidly during the 2000s.

The most important category of U.S. services receipts (or exports) to Bermuda has become professional and business services (including legal, testing, and accounting services) at almost \$4 billion annually. The second most important category of exports is now insurance and reinsurance services at almost \$3 billion. The third most significant category of services exports to Bermuda remains financial services that include \$1-2 billion in receipts for funds management and advisory services, as well as fees and commissions on transactions in securities.

U.S. Import of Services from Bermuda

Insurance. Bermuda is the leading supplier of insurance services to the United States in the world, with substantial U.S. payments (imports) for insurance and reinsurance; including reimbursements for losses (see Table 5 and Table 6). Although Bermuda has developed a capacity to reinsure most lines of insurance, it is dominant in catastrophic-event property and casualty insurance. Catastrophic-event property and casualty insurance premiums surged in the United States in recent years because of large losses due to major insured catastrophes, starting with Hurricane Andrew in 1992, then the terrorist attacks on the World Trade Center in New York in 2001 and major U.S. hurricanes in 2005. As Table 5 illustrates, insurance services imports from Bermuda grew 10 fold in the last 10 years. Bermuda has also become a major insurer of American cropland and a leading provider of corporate self-insurance plans (“captive insurance”).

Shipping. Another significant contributor to trade in private sector services has been Bermuda’s leading expertise in shipping services. Bermuda is a significant supplier of ocean freight shipping services, mainly related to its large and growing provision of ships to transport crude oil and LNG to ports, terminals and refineries along the U.S. gulf coast. Chevron Tankers, the American Eagle, and Bonny Gas Transport are examples of large Bermuda petroleum product transportation fleets that have expanded in recent years to meet the unique needs of the United States and the Atlantic Basin, providing very competitive services.

Table 5: U.S. Services Exports to and Imports from Bermuda: 1997-2010
(\$ USD Million)

	Total Private Services	Travel & Fares	Shipping	Royalties & License Fees	Financial Services	Insurance Services	Professional Business Services
Exports to Bermuda							
1997	869	23	5	79	434	113	54
2000	1,548	27	85	66	722	298	101
2006	6317	36	133	1,469	1,423	887	1,171
2007	8,232	95	432	1,715	2,230	1,066	1,297
2008	8,672	76	172	1,533	2,136	2,019	2,589
2009	9,523	58	182	1,459	1,423	2,615	3,561
2010 2/	9,950	50	250	1,600	1,550	2,700	3,800
Imports from Bermuda							
1997	2,614	266	717	NA	36	1,576	19
2000	6,315	274	912	NA	115	4,012	24
2006	15,686	284	181	159	198	14,814	110
2007	17,904	389	1,280	122	230	16,701	306
2008	23,124	358	1,122	88	213	21,002	268
2009	23,646	238	828	27	198	22,172	110
2010 2/	23,755	230	1,100	55	250	22,000	120
Direct Employment Ascribed to Services Exports							
2010 2/	48500	500	NA	0	16500	13000	18500
Indirect							
2010 2/	22800	100	NA	0	8250	5200	9250
Total Export Employment due to services exports to Bermuda							
2010 2/	71300	600	NA	0	24750	18200	27750

Source: Bureau of Economic Analysis – Survey of Current Business (SCB) October 2010.

1/ Cross border service sector trade generally reflects company receipt and payment information gathered by the Bureau in quarterly surveys. For example, trade in insurance services between Bermuda and the United States reflects receipts of insurance and reinsurance companies adjusted for “normal losses” and company investment portfolio changes. This methodology is summarized in U.S. Commerce Department, Bureau of Economic Analysis, SCB “Annual Revisions of International Transactions - July 2003 and July 2004. Reflects new updated insurance data from the 2008 Insurance Benchmark survey by BEA, US Department of Commerce, bureau of Economic Analysis

2/ Estimated by Albright Stonebridge based on 2010 officially reported overall services sector growth trends from ABIR and RAA

Thanks to its financial services capabilities, access to offshore and New York capital markets, and experience in ship registry and shipping services, Bermuda is becoming

an important domicile and manager of oil and LNG tanker fleets with strong connections to ship fleet owners in Asia and elsewhere in the world. Political stability, a perception of political neutrality and the access and capacity to handle large investments have made Bermuda a substantial player in supporting U.S. energy security.

Table 6: Imported Bermuda Insurance and Reinsurance Services Into the United States Catastrophe Property and Casualty Insurance Losses Paid by Policyholders and Premiums Paid by U.S. Insured (\$US Millions)

Premiums Paid by U.S. to Bermuda	Insurance	Reinsurance	Losses recovered
1997	287	4,070	1,887
2000	346	9,633	6,020
2001	329	NA	10,756
2002	833	16,403	8,853
2003	1,190	21,426	11,266
2004	933	26,453	12,578
2005	833	22,626	19,935
2006	1,570	24,216	11,578
2007	1,582	24,037	12,041
2008	1,059	34,433	20,315
2009	1,147	35,077	19,600

Source: US Department of Commerce, Bureau of Economic Analysis, Survey of Current Business. October 2010

Bermuda is the leading country reinsurance provider outside the United States. Comparatively, Bermuda bears larger risks and pays substantially more in losses to the United States than any other international provider. In 2009, the only other financial centers outside the United States that provided insurance services as significant as Bermuda were Ireland, Switzerland, the U.K. and Germany.

Tables 7 and 8 round out the complete economic picture of Bermuda's role in the United States. These tables summarize the significance of Bermudian multinational investment in the United States. The Department of Commerce estimates the output in the United States of Bermudian companies that provide predominantly services and those figures are presented below (between 1999 and 2008 -- the latest public data available). Bermuda-based services companies, particularly in the financial sector have expanded into the United States acquiring subsidiaries and producing American

jobs and revenues. Table 7 shows that total foreign multinational majority owned U.S. affiliates more than doubled their U.S. sales of services to U.S. persons between 1999 and 2008, increasing from \$293 billion to \$727 billion. In the same period, Bermudian owned U.S. affiliates increased their sales to U.S. persons from \$6 billion to \$30 billion.

**Table 7: Sales by United States and Bermudian Affiliates of Majority Owned Multinationals by Country: 1999-2008
(Affiliated and Non-affiliated)
(All Banking and Non-Banking Services 1/)
(Millions of U.S. Dollars)**

Year	U.S. MOFA Sales in Rest of World^{2/}	U.S. MOFA Sales in Bermuda^{2/}	Foreign owned MOUSA sales in U.S.^{3/}	Bermuda-owned MOUSA sales in U.S.^{3/}
1999	353,413	7,471	293,485	5,976
2000	413,470	7,929	344,389	6,391
2001	421,714	7,493	367,557	15,879
2002	423,508	7,882	367,614	18,732
2003	452,496	10,253	374,119	18,842
2004	642,840	7,692	540,912	17,876
2005	725,036	7,494	571,174	<20000 ^{3/*}
2006	889,820	9,990	648,286	24,313
2007	1,019,225	12,760	683,286	25,603
2008	1,136,877	15,000 ^{3/*}	727,371	30,478

Source: U.S. Department of Commerce. Bureau of Economic Analysis, Survey of Current Business, October 2010

1/ MOFA – Majority-owned foreign affiliates supplying services to affiliated and non-affiliated foreign persons in the rest of the world and in Bermuda.

2/ MOUSA – Majority-owned U.S. affiliates supplying services to U.S. affiliated and non-affiliated U.S. persons either from the rest of the world or Bermuda.

*3/ Data for 2005 and 2008 for Bermuda services supplied to the United States was suppressed by the statistical reporting agency so as to avoid disclosure of data of individual companies. However, reported information for those years for all of Western Hemisphere increased an average of 15% per year. Bermuda traditionally constitutes more than 55% of the Western Hemisphere and we estimate that Bermuda was likely \$20 billion or more in that year.

The employment data in Table 8 covers affiliates of all multinationals operating in the United States, both manufacturing and service-based. The data shows that employment associated with foreign-owned affiliates stopped growing in 2002 and has remained steady at about 5.5 million employees for the past 6 years or more.

During the same period, Bermuda multinational affiliates had a substantial employment presence averaging about 200,000 employees. A large part of these affiliates were former U.S. companies that relocated from the United States to Bermuda to adapt to the requirements of international business. Bermuda provided an offshore platform to conduct business in proximity to the United States and also with the rest of the world. In 2007-2009, many of these former US companies decided to relocate again to Switzerland and Ireland with the result that many affiliates and their employees were no longer reporting to an ultimate beneficial owner in Bermuda. Those jobs associated with those inverted companies are still in the United States and still controlled by offshore interests, but not Bermuda.

The more important trend to observe in Table 9 that bears directly on U.S.-Bermuda relations is that Bermuda-based investment is expanding jobs in the United States from 40,000 in 1996 to 67,000 in 2008. This is the case even as foreign affiliate employment relying on a U.S. platform for Canada, Japan and the United Kingdom declined by almost 200,000 jobs.

Table 8: Employment of Majority-Owned U.S. Affiliates, by Country of Ultimate Beneficial Owner: 1996- 2009 (Thousands of Employees)

Year	Total U.S.	Bermuda	UK	Japan	Canada
1996	5105.0	40.4	988.2	788.8	608.9
2002 1/	5570.0	215.4	991.6	621.0	472.5
2006	5330.5	193.8	908.8	631.0	457.4
2007 1/	5588.2	193.2	977.2	682.1	546.0
2008 1/	5636.2	207.0	977.9	690.0	509.8
2009	5279.7	190.0	902.3	661.4	473.9

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business, August 2011 and Albright Stonebridge estimates based on U.S. company announcements of establishment employment and investment relocation plans. In 2007-2009, Bermuda saw the relocation of many Bermudian corporate headquarters with manufacturing interests in the United States to Switzerland or Ireland resulting in a decline in U.S. jobs attributable to Bermuda. Also in 2008-2010, US and Chinese multinationals investing in United States semiconductors and other manufacturing sectors domiciled in Bermuda.

1/ Due to the availability of new sources of data, U.S. estimates for 2002, 2007 and 2008 include banking sector revenues.

In summary, Bermuda's contribution to employment in the United States comes from three sources as shown in this study and totals about 300,000 jobs. Approximately 30,000 U.S. jobs depend on the manufactured exports to Bermuda. Some 71,000 U.S. jobs are a result of the direct employment generated by Bermuda owned affiliates in

the United States selling products (mostly financial services) to U.S. persons. And finally, some U.S. 190,000 jobs are dedicated to producing and exporting services to Bermuda.

IV. The Role of Bermuda Insurance and Reinsurance in the U.S. Economy

Insurance and the U.S. Economy. Insurance protection against commercial and personal risk is critical to the functioning of the U.S. economy. It provides a safety net against economic disruption when sudden adverse events occur. In capital-starved areas of the United States, for instance, a crop failure can bankrupt a family farm. Large losses from a tropical storm can make it impossible to obtain a mortgage or other credit to rebuild a business or a home. On a larger scale, events like Hurricane Katrina and the September 11 attacks can cause massive, widespread economic disruption.

The mitigation of these risks through property and casualty insurance and reinsurance promotes stability in the overall U.S. economy. The U.S. National Association of Insurance Commissioners estimates that American insurance companies write direct premiums for life, property and casualty of more than \$1 trillion a year, making the U.S. the largest insurance consumer in the world.

Of this \$1 trillion in annual premiums, \$100 billion is written to cover multi-peril homeowners and commercial property insurance. And yet, since 2000, property losses from certain catastrophic events like hurricanes have regularly exceeded the amount of premiums paid to U.S. insurance companies. While the United States does rely on many other elements of risk transfer, such as, U.S. reinsurance, the U.S. capital market, and the American taxpayer, to expand available capital and spread financial risk, the U.S. insurance industry lacks the financial capacity to fully cover hurricane and other natural disaster losses as well as terrorist attacks. A global pool of capital is necessary to diversify the outsize risks from disasters in the United States.

As a major reinsurance and insurance provider, Bermuda serves as a critical backstop to the U.S. insurance sector. Bermuda's insurance capacity, as it pertains to the United States, falls into three general categories: natural disasters/catastrophic coverage, U.S. farmers and crop insurance, and corporate self-insurance. Bermuda specializes in these sectors of risk; its insurance industry having built its commercial and regulatory capability in these sectors over decades. To a greater and lesser degree, Bermuda stakeholders consciously stepped forward to meet these U.S. needs as competitive insurance capacity, first in the United Kingdom and then in the United States, weakened and faltered.

Natural Disasters/Catastrophic Coverage. The United States has experienced a significant increase in property-casualty losses in recent years, due to population growth and real estate development in disaster-exposed regions, and rising real estate values in areas that are prone to natural catastrophes. Over the last ten years, U.S. catastrophes (defined as an event that causes \$25 billion or more of property losses affecting a wide slice of population) resulted in over \$200 billion of U.S.-insured losses. According to insurance industry experts, the total value of insured coastal properties vulnerable to hurricanes and tropical storms in the United States was almost \$9 trillion in 2008 (see table below). And yet, the U.S. property and casualty insurance industry has the capacity to assume only about \$500 billion in risk, as measured by company balance sheet surpluses and net worth. As a result, the U.S. must diversify its high exposure to catastrophic risk depending on both domestic and foreign reinsurers. This additional insurance capacity relieves federal and state taxpayers and provides strong price competition available to U.S. policy holders.

Bermuda emerged as a major supplier of reinsurance to U.S. insurers after Hurricane Andrew in 1992, a transformative event, in insurance and reinsurance markets. At that time, traditional U.S. and U.K. suppliers of catastrophe insurance began to withdraw from the market and prices for such catastrophic event insurance coverage began to rise. Insurers began to look for more ways to spread risk by buying reinsurance.

Bermuda aggressively stepped forward to become the leading offshore source of insurance and reinsurance services to the United States, providing \$84 billion in payments for property and casualty losses since 2000 (including coverage of the 9/11 attacks in 2001 and Hurricane Katrina in 2005). Bermuda's regulatory environment created a uniquely supportive environment for rapid expansion of the sector, specializing in financing the reinsurance of potential large natural disasters. The 23 reinsurance companies domiciled in Bermuda supply 40% of the catastrophic event property and casualty coverage for the entire U.S. market, ranging from Long Island, New York to the Texas coast and 50% of the Florida market.

In 2005, the U.S. suffered \$60 billion in losses as the result of three major hurricanes, Katrina, Rita and Wilma. Bermuda covered \$17 billion of those commercial and residential losses. The Insurance Information Institute estimates that Bermuda provided the funds to replace 87,042 storm damaged homes in the eight affected states. Bermuda also provided billions of dollars in critical assistance to businesses following Hurricane Katrina, restoring or creating more than 20,000 jobs in regional economies from Texas to Florida in 2006.

As Table 11 demonstrates, average annual gross premiums for primary insurance and reinsurance paid by the United States to Bermuda are rapidly rising to levels of \$26 billion per year. During this time, average losses recovered by the United States were \$12 billion from Bermuda per year, totaling more than \$94 billion since 2000.

Table 9: Imported Bermuda Insurance and Reinsurance Services Into the United States Catastrophe Property and Casualty Insurance Losses Paid by Policyholders and Premiums Paid by U.S. Insured: 2009
(Millions of U.S. Dollars)

Premiums Paid by U.S. to Bermuda				
	Insurance	Reinsurance	Premiums	Losses recovered
1997	287	4070	4357	1887
2000	346	9633	9979	6020
2001	329	NA	NA	10756
2002	833	16403	17236	8853
2003	1190	21426	22616	11266
2004	933	26453	27386	12578
2005	833	22626	23459	19935
2006	1570	24216	25786	11578
2007	1582	24037	25619	12041
20081/	1059	34433	35492	20315
20091/	1147	35077	36224	19600

Source: U.S. Department of Commerce Bureau of Economic Analysis October, 2010 Survey of Current Business

1/ Reflects results of BEA's five Benchmark Survey on Insurance using NAICs supplied information.

Bermuda has a preeminent ranking globally as a reinsurer for commercial property and casualty risk. The reasons are that Bermuda is located close to the U.S., has developed a sophisticated infrastructure for the operation of financial institutions, offers flexible insurance regulation, and levies no income taxes.

Corporate Self Insurance (Captives). In response to the rapidly growing cost of providing certain government-mandated insurance to their workers and employees, a growing number of U.S. companies have formed self-owned (captive) insurance companies. In a nutshell, a captive insurance company is an insurance company formed by a business owner to insure the risks of the operating business. The operating business pays premiums to the captive, and the captive insures the risks of

the operating business. A captive is much more than an exotic form of self-insurance; it is the creation of a new insurance company that has the potential to grow into a full-blown insurance company seeking to profit from underwriting the risks of others. The idea of self-insurance is that retaining risks and paying the resulting claims or losses from captive or on-balance sheet financial provisions is less costly than buying commercial insurance from an insurance company. Cost savings to the self-insured entity are usually realized through the elimination of the carrying-costs that commercial insurers are obliged to pass on to their insurance company.

Bermuda is the leading global provider and manager of self-insurance programs to the United States. Approximately 75 percent of the 500 leading companies in the U.S. have captive insurance subsidiaries in Bermuda. Of the 6000 captive insurance companies globally, 1,100 are domiciled in Bermuda, with over \$20 billion in premiums written and representing about 10% of the commercial liability insurance market in the United States. Other major jurisdictions that support captive insurance corporate insurance plans include Vermont and the Cayman Islands. Each specializes in different sectors or lines of insurance.

Bermuda's tax structure, regulation, capitalization requirements, access to reinsurance, and available expertise in captive management companies make it a preeminent provider in the captive insurance market.

Many new on-shore captives (e.g., Vermont), are supported by Bermuda reinsurance and management. U.S. companies use captive insurance for many in-house corporate liabilities, such as health care insurance and major forms of liability insurance like workers compensation. Leading U.S. companies that rely upon captive Bermuda reinsurance companies include: IBM, ExxonMobil, Sun Microsystems, GM, Ford and Nisource (see list below). Bermuda-provided self-insurance is typically 10% less costly than U.S. third-party coverage.

Table 10: Partial List of Major U.S. Corporations with Captive Insurance Subsidiaries Domiciled in Bermuda

- 3M
- Chevron
- Exxon association of Oil shippers
- University of Washington
- Massachusetts Casualty Insurance Company
- Johns Hopkins Hospital & University
- New York Hospital/Cornell
- NY Presbyterian Hospital
- University of Rochester Medical School and Strong Memorial Hospital
- Yale-New Haven Hospital and Yale University's Medical School
- Structure Tone
- Stanford University Medical Indemnity and Trust
- Sprint Nextel
- McDermott International Oil company
- GM
- Nisource
- Cook Illinois Corp.
- Cephalon Corporation
- Dow Chemical Midland - Environmental Liability Employee Benefits Insurances
- Ford Motor Company
- Bank of America
- Home Depot
- ConocoPhillips
- Sears Roebuck
- Safeway
- Proctor and Gamble
- Sun Microsystems
- IBM

V. Bermuda's Investment Funds and U.S. Financial Relations

Over the last 10 years, Bermuda has emerged as an important international financial center.

Investment Funds. In 2008, Bermuda domiciled 1,133 regulated investment funds with almost \$200 billion in net assets. Most Bermudian investment funds are offshore funds established by U.S. money managers.

Bermuda is attractive to U.S. investors for a variety of reasons. First, Bermuda provides a global investment platform that attracts international capital. Second, investors from around the world view Bermuda as well-regulated, primarily because as a territory of the United Kingdom, Bermuda has close legal and administrative affinity with the U.K. regulatory system. Financial stakeholders have recourse to U.K. courts and the U.K. Financial Services Agency has strong relations to the Bermuda Monetary Authority. Third, Bermuda's tax system is attractive to most global investors. Bermuda does not tax world-wide income and does not impose a personal or corporate tax. Fourth, Bermuda has physical proximity to U.S. East Coast money managers. By establishing investment funds in Bermuda, U.S. fund managers can attract international investors that seek favorable tax treatment, and with all the regulatory safety and transparency of the U.K., only two hours by plane from New York.

U.S. investors are also attracted to Bermuda investment funds. Most U.S. investors in Bermuda-domiciled mutual funds and hedge funds are non-profits like pension funds and corporate investors that are indifferent to tax differences between the United States and Bermuda.

Insurance and reinsurance financing. Bermuda's reinsurance industry is constantly raising new financing to support its expanding lines of business, and it attracts U.S. investors looking for potentially high returns within a solid regulatory framework. Reinsurance is riskier than primary insurance, but provides higher returns. Other Bermuda industries – such as captive insurance, aircraft leasing and ship financing -- also attract investment funds from around the world.

One of the primary drivers of new reinsurance capital issuance in Bermuda has been the increasing interest of hedge funds in investing in that market. Hurricane Katrina in 2005 spurred an influx of Bermuda-based insurance and reinsurance capacity,

supported by special purpose investment funds that are easy to establish in Bermuda. Hedge funds have poured billions of dollars into reinsurance entities in Bermuda, wagering that the record hurricane losses of 2005 would drive higher insurance and reinsurance policy holder rates with U.S. state regulators, and thus making investment in property catastrophe insurance and reinsurance a good bet. (Hurricane-susceptible state governments like Florida are indeed trying to deal with a continuing trend toward higher insurance rates. Federal and state taxpayers are being asked to foot the bill for hurricane-exposed cities, but with government budgets in deficit, there seems to be little alternative to higher insurance rates.)

To at least partially meet the demand for more U.S. insurance at lower costs to policyholders, Bermuda financial regulators have been asked to authorize innovative capital-raising products. Hedge funds in particular have been attracted to innovative new types of risk capital that the Bermuda market has developed to supplement traditional reinsurance entities in covering catastrophic losses. One example is “collateralized reinsurance”, through which the reinsurer reserves a certain amount of capital to collateralize the risks that it is underwriting. This is attractive to hedge funds because it improves the creditworthiness of the reinsurer.

Another example is catastrophic (CAT) bonds, which are issued by insurance and reinsurance companies to help them access additional funds following a disaster. If losses from a catastrophe exceed a certain amount, then the bond defaults. However, if no disaster occurs, then the holder of the bond is paid at a higher than normal interest rate. Hedge funds are among the biggest buyers of CAT bonds.

In addition, hedge funds have been attracted to another innovative financial vehicle called industry loss warranties, which allow parties to purchase protection based on losses to the entire insurance industry, rather than losses from a particular catastrophe.

Hedge funds have also been big investors in “sidecars”, special-purpose entities created to provide additional capacity to existing reinsurers, usually for property catastrophes and marine risks. The sidecars receive premiums for the reinsurance underwritten and are liable to pay claims under the terms of the reinsurance contracts. The sidecar enables the reinsurer to expand its capacity to write additional reinsurance. Nearly all sidecars to date have been established in Bermuda, because of Bermuda’s favorable regulatory and tax systems.

Overall, the Bermuda market has become much more efficient and effective in recent years in providing new risk capital for property catastrophe insurance, thanks in part

to its favorable regulatory and tax structures. This has been critical as the American demand for catastrophic risk coverage in Florida and other disaster-prone areas has grown. That need is expected to continue, as the current recession and financial crisis undermine traditional insurance and state hurricane and wind funds.

Bermuda's U.S. Portfolio Investment. Bermuda is the 10th most important international portfolio investor with the United States. From 2000 to 2010, Bermuda doubled its U.S. portfolio investment to \$199 billion. Because of Bermuda's success as an international financial center, it is likely that major portions of the capital flowing into U.S. securities are as much international-origin hedge fund capital as capital accumulated by Bermuda reinsurance vehicles. It is also noteworthy that for most of the 2000s, Bermuda's allocation of portfolio investment in U.S. government securities has been at similar levels as shown below in Table 11.

Table 11 Country Ranking of Leading Foreign Holders of U.S. Securities: 2010
(Millions of U.S. Dollars)

Country	U.S. LT Treasuries	Other U.S.G. Bonds	All LT ST Debt & Equity
China	757112	454095	1462721
Japan	645957	219128	1269587
UK	54448	15759	812773
Cayman Islands	19121	42503	649751
Luxembourg	51846	23260	586222
Belgium	14727	14745	429188
Ireland	17512	33768	347955
Canada	15942	3826	339143
Switzerland	55548	14405	328238
Hong Kong	58786	63015	220514
Netherlands	13389	17000	232638
Bermuda	17589	38822	199374

Source: U.S. Treasury Department, Treasury International Capital System, TICS web site -- www.treas.gov/tic, 2011.

VI. U.S. Energy Security and Bermuda Shipping

The United States depends in large part on energy products -- including crude oil, petroleum products and LNG (liquefied natural gas) -- that are shipped from foreign oil fields to U.S. refineries. In fact, 55% of America's total crude oil supply is transported by tanker fleets from foreign oil fields.

The majority of tankers making port calls in the U.S. Atlantic and Gulf of Mexico are foreign-controlled vessels. (The U.S. West Coast is dominated by American tankers.) There are more than 2500 vessels in the active worldwide tanker fleet, 92 percent of which are owned and operated by foreign-flag companies and countries. Owners are primarily independent shipping companies (67 percent of total worldwide tonnage), and the remainder are oil companies (17 percent) and governments (16 percent).

The largest number of tankers in the world's independent fleet is owned by two Bermuda companies: American Eagle and Frontline. (These Bermuda domiciled companies are in turn owned by holding companies in Asia and Norway, respectively. To take advantage of Bermuda registry and regulation, the fleet must be Bermuda-domiciled.) American Eagle concentrates on Aframax class and smaller vessels that are well-suited for the lightering that is required to access the shallow ports and waters of U.S. Gulf Coast refineries. Frontline mostly provides shipping services in very large, deep ocean LNG ships like Suezmax-class, VLCC and ULCC class vessels. U.S. oil company tanker fleets also serve U.S. refineries and some of these ships serving the Gulf Coast are Bermuda-registered. The crude oil tanker fleet is well established in U.S. ports, and the LNG fleet is growing in significance to the United States.

Bermuda is a major supplier of energy shipping services to the United States. The U.S. Customs Service and the Corps of Engineers, which tracks ocean ships entering U.S. waters and ports transporting imports, reports that Bermuda-owned, regulated and registered ships provide \$1.3 billion, or 4%, of the shipping services upon which the United States depends for its imports. More than 90% of these shipping services from Bermuda to the United States are for crude oil imported on Bermuda tankers to refineries in the U.S. Gulf Coast.

Bermuda's Energy Shipping Fleet. Bermuda has a total of 158 commercial ships in its national registry; constituting approximately 10 million dead weight tons of capacity. Almost 50% percent of this registry by tonnage is energy transport vessels -- three

million tons of deep ocean, very large LNG ships, and one million tons of oil tanker ships. The average age of the Bermuda energy fleet is under six years and meets the most modern safety standards imposed by International Maritime Organization and the U.S. Coast Guard.

While the condition of tankers in the worldwide fleet varies widely, the Bermuda fleet receives high marks for its safety and environmental standards, according to David Astwood, a Bermuda shipping attorney and sectoral expert who analyzed the Bermuda fleet in recent publications (referenced in the annex). Astwood notes that the Bermuda registry and ship inspectorate (officially known as the Bermuda Department of Maritime Administration) is unique in that, as a territory of the United Kingdom, it flies the UK's Red Ensign, thus showing compliance with high quality U.K. regulatory standards for safety and operation. The advantage is that environmental and safety issues for Bermuda ships are rare and they experience fewer delays due to inspection issues.

In addition, Bermuda's tanker fleet is compliant with U.S. environment liability requirements of the Oil Pollution Act of 1990, and is known among operators as having a high reliability of operation, with infrequent oil spills and discharges and few port delays.

These qualities are particularly important in dealing with U.S. refineries along the Gulf Coast, which rely upon the Bermuda tanker fleet's ability to safely access shallow ports, while keeping costs low and meeting the environmental requirements of the U.S. Coast Guard.


Bermuda also has a thriving international ship finance and registration industry. Because of its strength as an international financial center, many of the world's leading owners, managers, builders, insurers, lawyers, accountants and bankers have worked closely with Bermuda to develop financial structures tailored to the specific requirements of the shipping industry.

In the past few years, there have been significant developments in Bermudian ship financing, which has been experiencing an economic boom. The most significant development in ship financing has been a surge in initial public offering activity by Bermuda-based shipping groups, particularly in the U.S. capital markets, and the increasing use of Bermuda as a base, both for companies and for the registration of vessels, for LNG ships. The surge in shipping IPO activity is evidenced by such Bermuda companies as Arlington Tankers, TBS International and Aries Maritime

Transport, which are listed on the New York Stock Exchange in Arlington's case and the NASDAQ National Market in the others.

It is expected that Bermuda-based shipping companies will continue to be used for listings on stock exchanges in the U.S., Europe and Asia, as long as the appetite for public offerings continues.

Another significant development is the increasing use of Bermuda as a base of operations for LNG shipping groups. As shipping groups have positioned themselves to move into LNG as an alternate source of energy, Bermuda has proved an attractive jurisdiction, acceptable to ship-owners and, more important, to charterers, for flagging LNG vessels and incorporating their owning companies.



VII. Holding Companies and Bermuda as a Multinational Corporation Domicile In a Rapidly Changing World Economy

Between 2008 and 2010, Bermuda-domiciled companies were the eighth largest foreign employer in the United States—providing about 200,000 U.S. jobs through majority-owned affiliates of multinational companies domiciled in Bermuda. 1/ The FDI survey referenced above and the U.S. government survey of services supplied through affiliates 2/ both estimate that these Bermuda domiciled multinationals generate between \$40 billion and \$70 billion in sales and contribute some \$40 billion to U.S. gross domestic product.

Domiciliation on a tiny island in the Atlantic sometimes is underestimated for its contribution to the U.S. economy. In the 1990s, there were some concerns that some U.S. companies re-domiciled their corporate structure from the United States to Bermuda, Cayman Islands, Ireland or Switzerland. These were called “corporate inversions.” Most of the operating jobs stayed in the United States but generally the inverted corporation’s income tax burden was reduced under double taxation treaties with the United States. United States tax legislation was introduced that limited any corporate income tax benefits for U.S. companies moving offshore under these inversions except when the U.S. company is sold and completely changes hands.

Thirty years later, in the 21st century, the profile and the governance of the multinational corporation in the U.S. economy have changed enormously. More than 5 million jobs are supported by foreign multinationals in the United States and a substantial portion of these jobs are created by “holding company” multinationals that are foreign-origin versions of the U.S. corporate inversion from the 1990s where

1/ This reflects the latest U.S. government survey of foreign direct investment (FDI) into the United States of the 2009 operations of U.S. affiliates of foreign companies published in August 2011 in the Survey of Current Business (see the bibliography for the full citation).

2/ U.S. sales of service industry affiliates domiciled in Bermuda is a significant but partial measure of Bermuda’s multinational presence in the United States and estimates of goods sales should also be included. The services affiliate’s estimates also come from the Survey of Current Business October 2010. (see bibliography)

production stays in the United States or China but the ultimate beneficial owners are in Bermuda or Hong Kong or Mauritius. Bermuda holding company multinationals represent 3% of this foreign multinational job creation in the United States.

A substantial portion of the foreign direct investment in the United States is structured under offshore holding companies where the production is in another country than the corporate domicile (regardless of whether this is China or the United States.) There is reason to argue that but for the economic benefits provided through these holding company multinationals the U.S. economy would not remain as competitive and that Bermuda and other offshore domiciliation jurisdictions are contributing to the economic strength of the U.S. economy.

It is worth making three specific points about the trends over the last two of three years between Bermuda and the United States that bear on U.S. jobs, domiciliation and holding company multinationals and how that contributes to U.S. competitiveness. In the last three years, the U.S. and Bermuda economies have changed in several ways that bear on assessing the economic benefits of domiciling in Bermuda and providing economic benefits to the United States.

First, many significant Bermuda companies redomiciled between 2007 and 2009 from Bermuda to Ireland or Switzerland. These redomiciliations occurred primarily for business reasons. Insurance companies moved to Germany and Switzerland as the European Union markets became relatively more attractive, companies made the judgment that clients would value structuring in “safe”, “secure” jurisdictions, and fear of adverse regulatory penalties loomed larger during the economic crisis. U.S. corporate inversions did not redomicile back to the United States, but moved to Ireland where it may have been thought double taxation treaties were more interesting. Some Cayman Island companies redomiciled to Bermuda. Finally, most of this redomiciliation of Bermuda companies seems to have stopped for the time being in 2010 and 2011 as the “investor-secure” jurisdictions in Ireland and Europe are struggling under their 2010-2011 sovereign debt and banking crisis. So for the foreseeable future, investor concerns that arose about U.S. “offshores” have abated or been subsumed by heightened economic insecurity in Europe and the BRICS. The implications for the United States is that Bermuda remains today an investment jurisdiction that is relatively secure for investors and corporate governance and remains one of the chief offshore jurisdictions that ensures that U.S. onshore production operations remains competitive in a world economy where manufacturing and services are dominated by emerging markets.

Second, it is important to recognize that Bermuda is one of the most important economic actors in the world economy connecting Asian manufacturing to the United States. For example, the Hong Kong lists more than 500 Bermuda companies registered on its stock exchange. This is also true to some greater or lesser degree in Taiwan and Singapore. The strong and growing presence of Bermuda-registered companies in the world economy reflects the realities of the economic relations between the United States and Asia, particularly China. On one hand, U.S. investors in production facilities in China which supply the U.S. and global markets prefer a secure legal jurisdiction like Bermuda with efficient corporate governance rather than the difficult and bureaucratic regulatory environment in China. On the other hand, Chinese and American investing partners prefer the benefits of structuring holding company multinationals to ensure tax benefits that would otherwise be unavailable by simply incorporating in China or the United States. The outcome is that manufacturing investors from semiconductor manufacturers to chemical companies obtain the benefits of Bermuda's secure and transparent legal governance environment, access to Asian manufacturing competitiveness, and a more competitive tax structure by domiciling in Bermuda. Moreover, recent experience shows that Asian companies like Haier are using their Bermuda domicile as the platform for their investment in manufacturing in the United States. So Bermuda holding company governance structures are making Chinese FDI into the United States more competitive and thereby creating jobs in the United States.

Finally, during the 2000s former U.S. operating companies continued to domicile in Bermuda for the same reasons that Asian companies invest in multinational structures discussed in the paragraphs above. Companies like Freescale, Marvell, Contel, AOSL, and Chipmos, to name a few fables chip companies, were formerly U.S. companies and redomiciled to Bermuda since 2006. Today, these Bermuda companies employ 30,000 U.S. workers in manufacturing and sales. Since 2008, these companies created \$3 billion of service-based export business to Bermuda in testing and R&D services creating more U.S. jobs. So altogether, Bermuda has become an important component of how global "holding company" multinationals that rely on U.S. jobs as well as related Asian operations. The Bermuda governance and investment environment contributes to the competitiveness of U.S. business investment, where a U.S. multinational or an Asian multinational would simply not perform as well.

VIII. Conclusion

In spite of the global economic crisis and difficulties in U.S. financial markets, Bermuda-U.S. economic ties remained surprisingly strong. Bilateral trade and investment flows expanded to about \$80 billion in 2009/2010. While some Bermudian companies with extensive economic stakes in the United States relocated to Europe during this period, Asian and U.S. companies relocated to Bermuda and offset those older U.S. inversions. As a result, Bermuda supports at least 200,000 jobs in the United States after all the relocations during the economic crisis to date. Add to that affiliate presence in the United States, the U.S. jobs created by U.S. exports to Bermuda and Bermuda supports almost U.S. 300,000 jobs.

Bermuda meets unfilled economic capacities and investor's financial needs for the U.S. economy. This is strengthened by Bermuda's responsive regulatory environment, close relations with the United States and United Kingdom, and supportive tax regime. Over the years, Bermuda has created ways to attract U.S. and international financing to fund insurance and investment capacities. Furthermore, international financing also contributed to the expansion and modernization of the Bermuda-registered energy shipping fleet upon which the United States depends in part for its energy security. The dramatic events of the last nine years -- devastating coastal hurricanes, natural disasters, man-made environmental events, and terrorist attacks -- required more financing and capital to cover growing uncertainties. Bermuda filled this need.

Today's global economic crisis created new challenges and has started a substantial restructuring of the world economy. The ongoing financial regulatory reforms creates opportunities for the Bermuda financial sector as investors find it harder and harder to do business in London and New York and seek alternative investment environments. The global financial crisis increased the world economy's reliance on Asian finance and economic activity. This is not a new trend as Asian influence in investment markets grew over the years with rising surpluses in trade and investment. The influence of Asian economic and financial is now increasingly independent of London and New York. Large financial flows arise in Asia and seek access to global markets, including the United States. Bermuda must find its way in this global environment and adapt to this restructuring. The United States will still be important to Bermuda, but in addition to European money seeking access to the United States, Asia and Middle East finance will seek investment platforms in Bermuda to make investments in the United States.

APPENDIX A: Methodologies and Notes

Economic Data. This study relies to a substantial extent on official government data to describe and assess the impact of Bermuda’s economic relationship with the United States. For the most part, this study sought to use one integrated set of data with common definitions and estimating techniques and then supplement that as necessary with specific data. Therefore, for most of this study we relied on U.S. government data that describes the U.S. international transactions with the rest of the world. This information is compiled by the U.S. Bureau of Economic Analysis (BEA) within the U.S. Department of Commerce in annual surveys of the business community. International services trade data are a major characteristic of the Bermuda-United States economic relationship. The essential methodologies for compiling this data and reporting it annually was summarized in “Selected Issues in the Measurement of U.S. International Services,” Survey of Current Business, by Obie Whichard and Maria Borga, U.S. Bureau of Economic Analysis, June 2002. Additional revisions to methodology for international insurance services measurement were summarized in “Annual Revision of the U.S. International Accounts, 1989-2003.” Survey of Current Business, by Christopher L. Bach, U.S. Bureau of Economic Analysis, July 2004.

Importantly, 2010 Bureau of Economic Analysis publications on International Services Transactions between the United States and Bermuda were updated by the Benchmark Survey of Insurance Transactions by U.S. Insurance Companies with Foreign Persons for 2008. This broader survey obtained every 5 years covers many more companies supplied by the U.S. National Association of Insurance Commissioners (NAICs). This report also benefited by the expansion of concept and measurement by BEA to include international banking financial services transactions between parents and affiliates in majority owned MNCs beginning in 2008.

Similar balance of payments information is compiled regularly by the Government of Bermuda but these published Bermudian accounts present no bilateral U.S.-Bermuda detail. Happily, the BEA information is quite detailed with respect to Bermuda and also offers a basis to make relative comparisons with other U.S. trading partners. The other official source of information for the study is the U.S. Treasury Departments “Treasury International Capital Account.” Again this information is based on a compilation of mandatory monthly reporting of all financial brokers and investors investing in the United States.

The Treasury and Commerce Department data has substantial detail by industry sector. For balance of payments, detail is available for 40 major categories of merchandise exports and imports as well as 13 major sectors of the services industry. Virtually all of this available information was revelatory with respect to Bermuda, summarizing trade in insurance, shipping, investment funds, and professional services. All of this information that is generally summarized in Chapter 2 on trade provided evidence that the U.S. economic relationship with Bermuda was large and substantial.

Nevertheless, an economic relationship has to be more than large to be impactful. To a significant degree, the study relied on compilations of U.S. and Bermudian private industry sector data to assess how Bermuda economic entities operated in the United States and why the United States relied on Bermuda rather than another country or on U.S. domestic resources. Where available we chose detailed industry data that BEA itself relied upon. Therefore there was some conceptual similarity in estimates, for example net written insurance premiums at the government level were compiled from the sources we used from the private sector.

Methodologies for estimating what is not published by BEA

Employment. In Chapter 2, this study describes the employment associated with U.S. exports of merchandise goods exports to Bermuda. In the same chapter, employment estimates are made related to cross-border services exports from the United States to Bermuda. The methodology for relating total industry employment to U.S. exports to Bermuda is based on information developed by the U.S. Department of Commerce, International Trade Administration, Office of Trade and Industry Information, (OTII) and the U.S. Bureau of the Census with the Bureau of Economic Analysis and the Bureau of Labor Statistics. Every year, the OTII estimates and publishes total jobs for U.S. manufactured exports associated with the NAICS Industry Codes. The most recent data available on this subject is 2007. But Albright Stonebridge economists undertook to compile employment data from public company sources for all US affiliated companies in Bermuda for 2009.

In this study we estimated exports of goods by NAICS industry sector for 2008 and services exports from Department of Commerce data. We then used the overall U.S. manufacturing export and employment relationships summarized in the OTII data base and using ratios derived from this of employment associated with a 2010 dollar of U.S. exports by industry, estimated the jobs associated with the direct and indirect manufactured exports to Bermuda.

The study also sought to estimate the U.S. jobs associated with international goods services transactions carried out by U.S. subsidiaries of Bermuda domiciled companies. This data is estimated by annual surveys carried out by the U.S. government of foreign direct investment in the United States. The most recent estimate was for 2009 with some more recent data for 2010. The methodology for these estimates is published in "U.S. Affiliates of Foreign Companies: Operations in 2009," Survey of Current Business, by Thomas Anderson, U.S. Bureau of Economic Analysis, August 2011.

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