Role of BIS in the Strengthening of Cross-Border Financial Regulation in the Global Financial Regulatory System

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Abstract
The Bank for International Settlement (BIS) is the leading global financial organization and its representations cover length and breadth of around 95% of global GDP. The operation of the BIS is to provide a harmonious platform for the synchronization of monetary policy in the member countries as reflected in the Article-19 statute of BIS. As per Article-21 (k), BIS functions on behalf of all members’ monetary authority. Moreover, the BIS mandate is to pursue financial stability and provides a platform to central banks authority to coordinate and collaborate with subjects related to global financial system’s continuous transform action. Though, the Global Financial Regulatory System (GFRS) lacks institutional framework in the field of cross-border financial regulation. However, BIS initiated the formal meetings for financial stakeholders. The BIS emerges as the most significant forum for financial cooperation and it provides a stage for the various stakeholders such as monetary authorities of apex bank and financial regulatory/supervisory authorities. Its significance multiplied in GFRS with hosting and providing a base to committees such as the Basel Committee on Banking Supervision (BCBS), the Committee on Payments and Market Infrastructures (CPMI) and the Committee on the Global Financial System (CGFS). In addition, it provides a base to International Association of Insurance Supervisors (IAIS), Financial Stability Board (FSB) and International Association of Deposit Insurers (IADI), though these three groups have their separate legal identity and own governance mechanism. These committees have developed a compendium international financial standard in their respective domain. These cross-border financial regulations are soft in nature, even though member and non-member jurisdictions are effectively implementing these international financial laws. During the global financial crisis, it was evident that the BIS host committees had put collective efforts to mitigate systematic risk and negative externalities of global financial crisis and provided confidence and stable environment for the proper movement of cross-border capital flows in the international monetary market.

Keywords: Bank for International Settlement (BIS), cross-border financial regulation, Global Financial Regulatory System (GFRS)

JEL Classification: F55, F33

Paper Classification: Research Paper

Introduction
Before Bretton Wood, the Bank for International Settlement (BIS) was the organized financial institution at global level formed under the Hague Agreements of 1930. The BIS was the origin in
the background of the Young Plan\textsuperscript{1}. The Young Plan dealt with reparation expenditure enforced on Germany under the Treaty of Versailles\textsuperscript{2} during the first world war. Later on, BIS became the payment agent for the European Payment Union (EPU, 1950-58) to expedite the re-establishment of currency convertibility for the western European countries during the second world war.

BIS has initiated the Basel Committee on Banking Supervision to look after cross-border banking concern and developed standard and good practice to strengthen the banking sector (Kern Alexander, 2009, pp. 867). However, these standards were nonbinding international accord; the member countries have implemented banking standards. Furthermore, the Committee on Payment and Settlement System (CPSS) and the Committee on Global Financial System (CGFS) have developed model codes and standards in the areas of payment, settlement, including overall systemic risk which has a substantial impact on the improvement in regulatory standard and practices. These committees function with a network of working groups and they have a relationship with other central banks from non-member jurisdiction. The bodies deliberate and deliver on most important rules, best practices, core principles, and guidelines that are required to reduce fragility and market risk, based on the requirement from time to time.

**The Role and Function of BIS in GFRS**

BIS ensures the apex bank prepares synchronized monetary policy across the members’ jurisdiction (Art. 19, Statutes of the BIS, pp. 14). Further, BIS may also perform duty on behalf of any members’ central bank at time coordinating monetary policy (Art. 21 (k), Statutes of the BIS, pp. 16). Moreover, the BIS mandate is to pursue financial stability and provides a platform to central banks authority to coordinate and collaborate with subjects related to global financial system’s continuous transform action. It works in close cooperation with the Basel Committee on Banking Supervision (BCBS), the Committee on the Global Financial System (CGFS), the Committee on Payments and Market Infrastructures (CPMI), the Markets Committee, the Irving Fisher Committee on Central Bank Statistics (IFC), and the Central Bank Governance Forum. Over and above, its Financial Stability Institute creates awareness of standard-setting bodies updated guidelines in members and nonmembers jurisdiction. Also, it provides a base to International Association of Deposit Insurers (IADI), International Association of Insurance Supervisors (IAIS) and Financial Stability Board (FSB), though these three groups have their separate legal identity and own governance mechanism. These bodies prepare guidelines for the various sectors such as an apex bank, securities market, insurance, banking and financial sector as a whole (Alexander, 2015, pp. 29-30). Also, they work on the concerns of these areas such as risk management, overall governance, capital adequacy, transparency, accounting, and payment and settlement. After a thorough study of sector-specific concern, they set and design principles and standards respectively. These standards provide a minimum benchmark for all financial institutions which serve as a soft law in the form of guidance.

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\textsuperscript{1}Encyclopaedia Britannica ; Young Plan, (1929), second renegotiation of Germany’s World War I reparation payments. A new committee, chaired by the American Owen D. Young, met in Paris It reduced the amount due from Germany to 121,000,000,000 Reich marks in 59 annuities, set up the Bank for International Settlements to handle the transfer of funds, and ended foreign controls on German economic life. However, hardly had the Young Plan started operation than the world depression of the 1930s began, and Germany’s ability to pay dwindled to the vanishing point.

\textsuperscript{2}World War I officially ended with the signing of the Treaty of Versailles on June 28, 1919.
Role of BIS hosted committees/bodies in strengthening the Cross-Border Financial Regulation

The Role of the Basel Committee on Banking Supervision in strengthening GFRS

Emergence of Banking Regulation in the backdrop of Cross-Border Banking Failure

The bankruptcy of the important banks in three nations came into the limelight of the international banking community, highlighting the need to enhance global banking regulation in 1974. In the same year, West German authorities shut down the Herstatt Bankhaus. It faced huge loss in the foreign exchange dealing. Britain shut down British-Israel Bank of London for bankruptcy distress (Alexander, 2009, pp. 869-870). In 1974, the Franklin National Bank in the US went insolvent due to unstable national wholesale deposit base, high speculation in the global forex market and dynamic international linkage. It was evident that the global financial sector had no formal mechanism for coordinating the national regulatory authorities. This banking crisis revealed the inadequacy of international banking supervision. Based on the regulatory gap in the banking sector, the G-10 set up the Committee on Banking Regulation and Supervisory Practices in 1974. The same was recognized as Basel Committee. The Basel Committee lacks formal or supranational authority. Therefore, it developed legally nonbinding best practices in the banking sector, additionally implemented good practices and core principles for efficient banking regulation in 1975 (Art. 3 Legal Status, BCBS Charter). The BIS hosted and provided administrative assistance to the Basel Committee. The Basel Committee board mandates on the cross-border banking issues and challenges. The Article 2 Activities, in which BCBS mandate, vision, and mission of Basel Committee has been discussed in detail is reflected in the following Figure A.

Figure A: The mandate of BCBS as stated in Article 2 (BCBS Charter)

- mutual sharing of information and identifying current or emerging risks for the banking sector
- joint concordance to enhance cross-border financial regulation by cooperative supervisory task
- encourage and advocate international good practices and core principles
- from identifying regulatory gaps to addressing these gaps and inefficiency
- surveillance of BCBS principles in the member jurisdiction and rationalizing regulation for cross-border banking sector
- discussing and deliberating with monetary authorities of non-member jurisdiction and take care of their concern during BCBS policy development
- best practices of banking sector should be synchronized and integrated with interlinked financial sector and international standard setting bodies.
BCBS prepares stringent supervisory measures which mitigate the risks of banking failures and develop fair competitive environment among cross banking jurisdiction. Based on the requirement, they establish and upgrade existing norms. In the background of the fiasco of the Italian bank Banco Ambrosiano, the Basel Committee amended Concordat in 1983 (Ferran & Goodhart, 2001, pp. 281). This revised concordat became a principle for the regulating cross-border banking business. It provided a framework in which domestic regulators ensure responsibility in credit risk exposure, asset quality and the capital adequacy ratio (CAR) norms for the transnational operations of home country banks. Further, the host country authorities were made responsible for the provision of liquidity requirement to a foreign bank (Alexander, Dhumale & Eatwell, 2006, pp. 47-48). These rules and procedures were framed to ensure that the banks operating in a foreign country should fulfill adequate supervision norms. This approach was termed as a ‘consolidated regulation’ \(^4\) and ‘dual key’ supervision (Brummer, 2015, pp. 78).\(^5\)

In early 1980’s the storm of the Latin American debt crisis and bankruptcy of major US banks made Basel Accord more stringent. In 1988, the Basel Accord implemented the minimum condition of eight percent capital adequacy ratio (CAR) on the international bank within G-10 countries jurisdiction. It harmonized banking regulation among the G-10 countries on the line of execution of international minimum standard and created a level playing field for banks operating globally. Further, this framework was planned to stop those financial institutes which were increasing their exposure to credit risk through high leverage (Basel I 1988).\(^6\)

In the same year, the Basel Forum issued the guidelines for deterrence of unlawful access to the banking sector as a whole. The main intention was endowed with stringent rules and regulation on the issue of money laundering, illegitimate funds, and counterfeiting. The anti-money laundering statement on prevention helps regulators in preventing criminals from misusing the financial system. It has given a clear signal to financial institutions to ensure integrity and reliability and not to follow association with money laundering activities.

The Basel Concordat of 1990, acknowledged as ‘Information Flows between Banking Supervisory Authorities’ was formulated to develop the quality of regulation of cross-border banking. It recommended regulatory bodies to commence affirmative commitment to cooperate with one another in all prudential regulatory subjects mutually.

Bank of Credit and Commerce International (BCCI) failure challenges the Cross-Border Financial Regulation

The Bank of Credit and Commerce International (BCCI) got failed in 1991 which has exposed regulatory bottlenecks where banks were functioning in the multiple jurisdictions. The BCCI group had single preeminent grade shell holding company the BCCI Holdings, S.A. incorporated in Luxembourg as per the Study of the Bhala(1994). It possessed all the share of two operating holding companies namely, BCCI, S.A., a Luxembourg company and BCCI Overseas functioning for the Cayman Islands. Those two functioning companies had owned subsidiaries, divisions, outlets, and headquarters, which operated in around 70 countries encompassing almost all

\(^3\)Article 2 (BCBS Charter) interpreted by author
\(^4\)Consolidated supervision mean “Parent bank and parent supervisory authorities monitor the risk exposure of the banks or banking groups for which they are responsible, as well as the adequacy of their capital, on the basis of the totality of their business wherever conducted”; See also, Johanne C. Prevost (Seminar for Senior Bank Supervisors, 2000).
\(^5\)Dual key supervision means that the regulatory authority of each nation concurrently assesses the other’s ability to supervise and carry out its respective responsibilities.
\(^6\)The Basel I Accord was entitled ‘International convergence of capital measurement and capital standards’
continent except Antarctica. In the BCCI failure, it was apparently evident that both home and host countries had bypassed supervision.

Based on the regulatory gap in BCCI scandal, the Basel Committee 1992 developed a minimum and core standard for the supervising of cross-border dynamic financial flows. The development of minimum rules and norms for streamlining cross-border banking groups and specifying role and responsibility of home and host country supervision is discussed in the following Figure B.

**Figure B: Role and Responsibility of home and host country supervision of International Banking**

<table>
<thead>
<tr>
<th><strong>Home Country Supervision</strong></th>
<th><strong>Host Country Supervision</strong></th>
<th><strong>Coordination between Home and Host Country Supervision</strong></th>
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<tbody>
<tr>
<td>International banks should be supervised by a home-country legislation</td>
<td>Host-country regulator adjudicate to international bank which is not fulfilling minimum standards of host-country legislation</td>
<td>Establishment of cross-border banking business should get prior approval from the both the home and host country jurisdiction</td>
</tr>
<tr>
<td>Supervisory body must acquire required information from international banking home-country</td>
<td>Host-country could enforce antagonistic decree in accordance with its prudential banking regulation</td>
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</table>

To streamline international banking business, the BCBS has prepared basic guidelines for regulating the International Banking Groups which include, supervision of international banking business under the home-country jurisdiction; both home and host countries should come out mutual consent before establishing cross-border banking; and if host-country supervisor verifies noncompliance of basic guidelines by international bank, the host-country supervisor can enforce necessary preventive retribution.

The minimum standards jurisprudence built strong core consolidated supervision, dual key supervision, and well-informed national jurisdiction. This Basel accord was initially derived from a calculation of bank’s credit risk exposure. However, it was subsequently amended in 1996 in which it upgraded to a bank’s market risk exposure. Further, it extended the eight percent capital adequacy obligation to a trading book operation (Al-Anani, 2009, pp. 70).

**Development of cross-border banking norms: Basel I to Basel III**

The Committee has enhanced and revised the Basel norms from Basel I to Basel II norms in the period of 1999 to 2004. The Basel II capital accord was published in June 2004. It was designed to make regulatory capital more responsive to the risks which bank do observe in day to day cash transaction. This has allowed banks to hold a lesser amount of supervisory capital for their credit, market and operation risk exposures than what earlier was required in Basel I norm. There were challenges faced by Basel II, in which the bank has to take prior consent to use the secure risk measurement in more than one jurisdiction. Though it was already there in the market risk revision in 1996, the degree of cooperation between home and host supervisors was increased in Basel II. However, the Basel II was agreed upon and adopted by several non-member countries on different timescales.
The banks were exposed to the concern of massive liquidity to risks in off-balance sheet transaction which increased loss-absorbing capital during the global financial crisis (2007-10). The pro-cyclicalist argue that banks increase their capital buffer during booms and follow the reverse in case of downturn, whereas counter-cyclicalist claims that banks reduced capital buffer during boom and inverse in the event of a downturn Vu & Turnell, 2015, (pp. 110). In reality, banks were following the opposite of pro-cyclical and counter-cyclical principle. Large banks were favoured with sophisticated databases over small banks that permitted large banks to hold reduced amount of assets as a proportion of risk-weighted assets compared to the medium size and small banks. This has clearly benefited advanced economies at the cost of emerging economies, as banks in advanced economies had access to a large amount of default data on borrowers and counterparties. Therefore, they were in a better position to devise lesser risk based on the model which resulted in lower capital requirement. The phenomena of pro-cyclicality of Basel II created a destructive effect on the overall global financial system, where more exposure to volatility began with a boom and ended with burst (Kasekende, 2015, pp. 10).

The enactment of Basel III has largely been judicious. Since the implementation of Basel III norms, the member jurisdictions have been reporting their application from 2011. This process has provided transparency on the deadlines of the adoption. The Basel III strengthened the Basel Committee quantitative impact study (QIS) efforts on banks’ willingness to monitor the Basel architecture’s core principles. All the member nations have issued and published final rules on risk-based capital standards, liquidity coverage ratio (LCR) and leverage ratio disclosure requirements. This means all large worldwide active banks have adopted risk-based minimum capital requirements.

The Committee on Payment and Settlement System (CPSS)/Committee on Payments and Market Infrastructures (CPMI) in strengthening GFRS

CPSS has the mandate to prepare standards for efficient payment and settlement at international level. In view of the global financial crisis, the CPSS reviewed its mandate which was approved in September 2013 by the Global Economy Meeting (GEM). The CPSS was renamed as the Committee on Payments and Market Infrastructures (CPMI) valid from 1 September 2014. So, in the post-global financial crisis, the committee extended the mandate to safe and efficient clearing settlement with market infrastructure which includes financial stability worldwide (Art. 1 Role, Charter of CPMI). The CPMI comprises the monetary authorities’ representatives; they scrutinize subject matters of payment system regulation along with clearing and settlement of securities and foreign exchange transactions. The CPMI looks after monitoring and identifies risks for the safety with the objective to promote global standards and recommendations for their implementation. It examines big value funds transfer system, foreign exchange settlement mechanisms, clearing provision designed for exchange-traded derivatives contract and retail payment instruments in digital money form. The roadmap of payment system is detailed in its Red Book for broad guidelines purpose.

The Committee on the Global Financial System (CGFS) in strengthening GFRS

CGFS is a forum for central bankers that examines and monitors widespread concerns related to the global financial system. It suggests relevant policy to accomplish monetary and financial stability. The principal objective of the Committee is to detect and evaluate possible root and origin of instability in the international monetary system. The Committee functions on a framework to increase transparency of international finance by providing facts and evidence in the form of report and statistics publication with the assistance of central banks as well as BIS support.
The Committee interacts with other supranational and global institution for pursuing its mandates and objectives.

### Table A: The mandate of Global Financial Supervisory Bodies (GFSB)

<table>
<thead>
<tr>
<th>Global Financial Supervisory Bodies/Committees</th>
<th>Mandate/ Goal</th>
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<tbody>
<tr>
<td>Basel Committee on Banking Supervision (BCBS)</td>
<td>Quality of banking standards worldwide and implements best practices for expeditious banking regulation globally</td>
</tr>
<tr>
<td>Committee on the Global Financial System (CGFS)</td>
<td>Short-term observing the global financial system state of affairs; long-term focuses to strengthen the global monetary system by enhancing market operation and promoting financial stability and sustainability</td>
</tr>
<tr>
<td>Committee on Payments and Market Infrastructures (CPMI)</td>
<td>Endorses the safe, secure and effective payment and clearing, settlement.</td>
</tr>
<tr>
<td>International Association of Deposit Insurers (IADI)</td>
<td>To enhance the effective deposit insurance systems</td>
</tr>
<tr>
<td>International Association of Insurance Supervisors (IAIS)</td>
<td>To promote internationally harmonious guidelines for the insurance industry.</td>
</tr>
<tr>
<td>Financial Stability Forum (FSF)</td>
<td>To estimate instability distressing the global finance, to tackle these market risks and to enhance synchronization with all stakeholders and make them accountable for monetary stability and sustainability purpose.</td>
</tr>
<tr>
<td>Financial Stability Board (FSB) [successor of FSF]</td>
<td>To develop stronger institutional setup so that it could efficiently bring together national financial authority, standard-setting bodies (SSB) and international financial institutions (IFI) in resolving the problem of instability and market risk.</td>
</tr>
</tbody>
</table>

*Source: Standard-Setting Bodies in the Compendium - FSB*

#### The International Association of Deposit Insurers (IADI)

In the beginning, the IADI formed as a working group and look after the issue related to ‘Deposit Insurance’. It was formally established by the Financial Stability Forum (FSF) in 2000. The primary objective was to sustain stability and equanimity in the financial system by promoting global cooperation and harmonization in the field of deposit insurance. It provided guidelines and developed ‘Core Principles for Effective Deposit Insurance System’.

#### The International Association of Insurance Supervisors (IAIS)

It is a membership association of insurance supervisors and regulators set up in 1994. The objective of the IAIS is to “develop efficacious rules and standards of the insurance sector with the intention of enhancing legitimate, intact and secure insurance markets (...)” [‘Art. 2 Mission of the Association, IAIS By-Laws]. It provides a platform for exchanging information and sharing experience to strengthen GFRS. It encompasses around 210 Members from nearly 150 jurisdictions in 2014. Their activities are endorsed by their Secretariat located in Basel and headed by a Secretary-General.

#### The role of Financial Stability Forum (FSF) in GFRS

The President of the Bundesbank, Hans Tietmeyer prepared a report offering a framework for closer synchronization involving many global monetary authorities and existing international financial institutions to promote global financial stability and surveillance (Liberi, 2014, pp. 5-6). The Tietmeyer’s proposal was accepted and it set up the Financial Stability Forum (FSF)
in the year 1999. The focus of FSF was to examine instability and systemic risk disturbing the global finance, to scrutinize action required to handle these vulnerabilities and strengthen the harmonization amongst all stakeholders responsible for financial sustainability. For fulfilling these mandates, the forum meets twice a year. The stakeholders consist of the finance minister, central bank governor, and head of financial supervisory authorities of the G-7 countries, along with global financial supervisory bodies, international economic organization, and international financial institutions. Its main representatives are from the International Monetary Fund (IMF), World Bank Group, Bank for International Settlements (BIS), Organization for Economic Cooperation and Development (OECD), Basel Committee on Banking Supervision (BCBS), International Accounting Standards Board (IASB), International Organization of Securities Commissions (IOSCO), International Association of Insurance Supervisors (IAIS), Committee on Payment and Settlement Systems (CPSS), and Committee on the Global Financial System (CGFS). Later on the European Central Bank and supplementary national members includes Hong Kong, Australia, Netherlands, and Switzerland also joined (Gadinis, 2013, pp. 165).

FSF has created the opportunity to be the first Macro-Prudential Regulator in the real sense. The platform has brought together various international regulatory and supervisory bodies to a medium, a mechanism of sharing of information and policy implementation in a synergetic attempt among the other stakeholders. Its organizational framework provides a forum to discuss a set of global standards and best practices among a variety of interested players in the global finance. The FSF could not mark its footprint and failed in their mandate during one or other form of market failure.

Establishment of Financial Stability Board (FSB) as a successor to the FSF

The London summit led to the establishment of a Financial Stability Board (FSB) as a successor to the FSF. The FSB was designed to develop stronger institutional setup so that it could efficiently collaborate with national financial authority, international financial institutions (IFI) and international standard-setting bodies (ISSB) in addressing issues related to vulnerabilities and market risks. For the institutional setup, the FSB would consist of a Chairperson, a Steering Committee, the Plenary, SSBs, IFIs and the Secretariat (Weber & Staiger, 2014, pp. 85-86). The Plenary is the governing body, and the Steering Committee is an executive body. The membership contains the G-7 countries plus rest of the G-20 and the European Commission. FSB would pursue in implementing international financial standards, periodic peer reviews, accountability and transparency of financial sector. It will also work on complex issues such as tax havens and non-cooperative jurisdictions.

The FSB has developed twelve important standards in the area of Micro-Prudential Regulation and Macro-Prudential Regulation for developing sound financial systems. These regulations are generally legally non-binding soft law in nature. However, these regulations are implemented judiciously by all member and non-member countries in their respective jurisdiction. The FSB acts on a diverse range of regulatory leakages and gaps from its inception. For example, each supervisory college monitors large international financial firm, standard guidelines for cross-border cooperation and coordination. It has engaged multi-lateral dialogues to resolve home-host and global issues. In 2013, the FSB was recognized as a not-for-profit organization under Swiss law with seat in Basel to acquire legal status under International Economic Law (Preface, FSB - 2nd Annual Report 2015). The FSB is gradually moving towards the ‘World Supra Financial Authority’. The FSB addresses the issues and challenges related to regulatory arbitrage, systemic risk, and market fragmentation in the global financial regulatory system (GFRS).
Conclusion

BIS plays a significant role in the GFRS for providing cross-border financial regulation from time to time. This financial regulation was updated and upgraded by BCBS, CPMI, CGFS, IAIS, IADI, and FSB as per dynamic change in the GFRS. For example, the bankruptcy of major banks Hertatt Bankhaus (West Germany), British-Israel Bank of London ( Britain), Franklin National Bank (US) brought GFRS into limelight and need to enhance global banking regulation was highlighted, which resulted in setting up of the Committee on Banking Regulation and Supervision (Basel Committee) in 1974. The Basel Committee developed norms to mitigate the systemic risks of banking failure and provided a fair and competitive environment for cross-border jurisdiction. The BIS and its host committees streamline cross-border financial regulation in a phased manner across the member jurisdictions. The institutionalization of financial regulation had reduced transaction cost and enhanced overall market efficiency in the global financial regulatory system. This framework is moving towards integration of global financial system where the standard setting bodies address the leakages and regulatory gaps by updating standard based on current environment. The Global Financial Supervisory Bodies (GFSB) such as IADI, IAIS and FSB, focus on developing the prudential financial regulation. These bodies prepare guidelines for the various sectors such as insurance market, banking sector, securities market and corporate sector as per the new transformation in GFRS.

References


About The Basel Committee. (2017 August 10). Retrieved from http://www.bis.org/bcbs/about.htm?m=3%7C14%7C573


Amity Journal of Economics 59

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BIS. *Basel Process*. Retrieved from https://www.bis.org/about/basel_process.htm


BIS. Organisation and governance – Overview. Retrieved from https://www.bis.org/about/orggov.htm?m=1%7C2%7C603


Charter of the Committee on Payment and Market Infrastructures. (01-Sep-14). *Art 1 Role* (No. 1). Retrieved from https://www.bis.org/cpmi/charter.pdf


FSB. Our History - Financial Stability Board. Retrieved from http://www.fsb.org/about/history/?page_moved=1


IAIS - International Association of Insurance Supervisors. About the IAIS. Retrieved from http://iaisweb.org/index.cfm?event=getPage&nodeId=25181


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