Global Arbitration Review

The Guide to Damages in International Arbitration

Editor
John A Trenor

Third Edition

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Preface

This third edition of Global Arbitration Review's *The Guide to Damages in International Arbitration* builds upon the successful reception of the first two editions. As explained in the introduction, this book is designed to help all participants in the international arbitration community understand damages issues more clearly and communicate those issues more effectively to tribunals to further the common objective of assisting arbitrators in rendering more accurate and well-reasoned awards on damages.

The book is a work in progress, with new and updated material being added to each successive edition. In particular, this third edition incorporates updated chapters from various authors and features several new chapters addressing such issues as best practices and issues in discounted cash flow models, full compensation and total reparation, and estimation of harm in antitrust damages actions.

We hope that this revised edition advances the objective of the first two editions to make the subject of damages in international arbitration more understandable and less intimidating for arbitrators and other participants in the field, and to help participants present these issues more effectively to tribunals. We continue to welcome comments from readers on how the next edition might be further improved.

John A Trenor
Wilmer Cutler Pickering Hale and Dorr LLP

Part IV

Industry-Specific Damages Issues

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Damages in Financial Services Arbitrations

Chudozie Okongwu[1]

Introduction

In recent years, there has been increased interest in the use of international arbitration to resolve financial services disputes – and, in particular, disputes involving financial instruments such as swaps and other derivatives.[2] Parties to an 'over-the-counter' (OTC) transaction may agree to arbitration in the case of a dispute (for example, in the contractual documents governing the transaction).[3] In addition, cross-border investor–state disputes involving financial instruments (e.g., shareholdings or sovereign debt) may be subject to arbitration under bilateral investment treaties (BITs), in particular, where there is a claim of state expropriation.

One of the primary advantages of using international arbitration for financial services disputes is the ability to select arbitrators who understand the financial markets and products. To this end, in 2012, the Panel of Recognised International Market Experts in Finance (P.R.I.M.E. Finance) was formed, providing an international arbitration forum for financial disputes and a roster of arbitrators with specialised knowledge of complex financial transactions.[4] In 2015, the Financial Sector Branch of The Arbitration Club published suggested

1 Chudozie Okongwu is a managing director at NERA Economic Consulting. He would like to thank Erin McHugh (associate director) and George Moschopoulos (analyst) for their assistance in the preparation of this chapter.

2 'The use of arbitration under an ISDA Master Agreement', Memorandum for Members of the International Swaps and Derivatives Association, Inc. from Peter Werner to ISDA Financial Law Reform Committee, 19 January 2011, available at: www.isda.org/a/NyDDE/flrc-isda-arbitration-memo-jan11.pdf.

3 In 2013, ISDA published model arbitration clauses for use in ISDA Master Agreements governing over the counter (OTC) derivative transactions. With these clauses, counterparties to an OTC derivative transaction can agree to have any disputes decided using arbitral rules such as those of the International Chamber of Commerce (ICC), the Hong Kong International Arbitration Centre (HKIAC) or P.R.I.M.E. Finance.

4 https://primefinancedisputes.org/page/about-us.

clauses for use in arbitration agreements to expedite the resolution of financial services disputes (the Financial Services Expedited Arbitration Procedure).[5] The procedure is designed to supplement the rules of various arbitration forums (including the ICC and P.R.I.M.E. Finance) and include that the arbitrator or arbitrators should have experience or expertise related to financial services.[6]

The types of financial services disputes that may be brought before an international arbitration tribunal include claims for losses resulting from expropriation, suspension of payments or default on a financial instrument, or disagreements on the value upon close-out or termination of positions. Estimating quantum in these types of disputes often involves the valuation of complex financial instruments, and typically requires expert evidence. This chapter first discusses general concepts that are applicable to the valuation of all financial instruments. It then explains more complex concepts that are particularly important in the context of valuing derivatives. Finally, this chapter provides examples of how changes in financial regulation can affect the valuation of financial products.

Valuation of financial instruments

The most direct method of valuation for most financial instruments involves estimating the present value of the expected future cash flows from the asset. This means that the sum of expected future cash flows is adjusted to reflect the time value of money as well as associated risks. Below, I discuss some common types of financial instruments and methods used to estimate their value.

Types of financial instruments and their associated cash flows

An equity investment (for example, a share of stock) represents an ownership interest in a company. Cash flows received on equity investments include income (e.g., dividend) payments.

A bond is a debt obligation. Cash flows received on bonds typically include interest payments and the repayment of principal at maturity.

Derivatives are financial instruments whose cash flows depend upon the performance of one or more underlying assets, indices or rates. The payment amounts are determined with reference to a specified payment formula.

Examples of derivatives include call options, put options, interest rate swaps and credit default swaps:

- A call option gives the holder the right, but not the obligation, to buy an asset (for example, shares of stock) at a specified ('exercise') price on (or before, in some cases) a specified date.
- A put option gives the holder the right, but not the obligation, to sell an asset at a specified exercise price on (or before, in some cases) a specified date.
- An interest rate swap is a transaction in which two parties agree to exchange cash flows at specified dates. In the most common of such transactions, a plain vanilla interest rate

5 'Expedited / Fast-Track Arbitration Procedure for Financial institutions and their clients', 19 May 2015, available at: www.brownrudnick.com/alert/expedited-fast-track-arbitration-procedure-for-financial-institutions-and-their-clients/.

6 Ibid.

swap, one counterparty agrees to pay a cash flow calculated using a fixed rate of interest, while the other counterparty agrees to pay a cash flow calculated using a floating rate of interest (for example, LIBOR), with both cash flows being in the same currency.
- A credit default swap (CDS) is a transaction in which one party (Counterparty A) agrees to make periodic payments to the other (Counterparty B). In exchange, Counterparty B agrees to make Counterparty A whole should there be a credit event (e.g., a missed interest or principal payment) associated with a reference obligation (e.g., a bond).

It should be clear from the above examples that the amount and timing of cash flows from an asset are not always known with certainty. The level of future dividends, if any, to equity holders is uncertain. A company might at some point become insolvent or miss an interest payment and both of these have implications for bondholders. With options, there is uncertainty regarding whether the underlying will ever reach the exercise price as well as the level it will attain before maturity. For an interest rate swap, the level of future floating rates of interest is uncertain. And for a credit default swap, there is uncertainty both about whether a credit event will occur and its timing (and severity) if it does.

Nevertheless, to value an asset, one frequently needs an estimate of these cash flows. Below, I describe some of the methods that are commonly employed. The list is not exhaustive, but it provides a basic understanding of some of the methods used in the area.

Estimating future cash flows

Companies

There are at least three ways that the value of future cash flows can be estimated. One could use a cash flow forecast for the firm in question. Such a forecast might be available as part of planning by the firm or may be the result of work by a third party such as a credit or equity analyst. Alternatively, one could analyse historical cash flows and use this to posit a pattern of future cash flows. This approach generally requires some assumption about the growth rate of such flows over time. Lastly, one might look at expected future cash flows[7] as at the valuation date for comparable companies in similar circumstances and assume that the pattern of future cash flows for the company of interest would have followed (or will follow) a similar pattern. Depending on the circumstances, one or more of these techniques may be appropriate.

Equities

Broadly speaking, the valuation of equity in a firm requires an estimate of the future cash flows to equity holders. This can require assumptions regarding payout ratios[8] and future growth rates.

Debt

Generally, the agreed terms of cash flows to the holders of debt are known. These may take a variety of forms, including a fixed rate of interest, a rate of interest linked to a reference

7 Management forecasts or forecasts by analysts, for example.

8 The payout ratio is the percentage of a company's profits that is paid out as dividends.

rate (i.e., a floating rate), or a payment-in-kind option (PIK) provision. The cash flows to be received on a floating rate debt instrument will be affected by movements in the reference rate in the future. Where there is an option to pay all or some of an interest payment in kind or in cash, an expert will consider this feature when valuing the security. Many types of debt also have call or put provisions that can affect future cash flows and, hence, must be considered.

Adjusting future cash flows

Once future cash flows to be received from a financial instrument are estimated (more on this below), these must be valued as at a selected valuation date. Future cash flows must be adjusted to determine their present value, typically by discounting. This is, in part, because of a concept known as the 'time value of money' – i.e., that $1 today is worth more than $1 to be received in the future because (if interest rates are positive) money received today can be invested in a risk-free interest-bearing asset.

The discount rate applied to estimated future cash flows should also reflect the different types of risks associated with those cash flows. All else being equal, the riskier the cash flows, the higher the discount rate that should be applied to those cash flows (and hence the lower the value of those cash flows today).

Another way to think about the discount rate is that it is the rate of return required by investors to hold a given financial instrument. All else being equal, the riskier the investment, the higher the expected return demanded by investors.

Different types of risks

There are several different types of risks that should be considered when valuing a financial instrument. These include:

- Market risk: this is the risk that a financial instrument's value will change as a result of market-wide factors.[9] This type of risk is also referred to as systemic or non-diversifiable risk.
- Country risk: this is the risk that a financial instrument's value will change as a result of changes in the business environment in a country, including macro-economic and political conditions.
- Credit risk: this is the risk that an obligor will fail to make payments in accordance with agreed terms. This is largely a function of the creditworthiness of the obligor (i.e., the ability and willingness to make the contractual payments).
- Counterparty risk: this is the risk that the counterparty to a derivatives transaction may not pay the amounts due. For example, in an interest rate swap transaction, each party has the potential to have positive net claims against the other party in the present and in the future (depending upon how interest rates move) and each party is therefore exposed to counterparty risk. The counterparty risk that each party faces is, therefore, a function of the current value of the contract (market risk) and the creditworthiness of the counterparty (credit risk).

9 Zvi Bodie, Alex Kane and Alan J Marcus, *Essentials of Investments*, Fifth Edition, McGraw-Hill Irwin, 2004, pp. 170–171.

- Liquidity risk: liquidity refers to the speed and ease with which an investor can enter or exit a position.[10] All else being equal, an investor is willing to pay less for a financial instrument that is less liquid because, if and when he decides to sell that security, this will be more difficult (i.e., have higher costs).
- Regulatory risk: this is the risk that changes in laws or regulations may materially affect a company's or financial instrument's value.

Valuing exchange-traded and over-the-counter financial instruments

If a financial instrument is traded on an exchange and in a highly liquid market, it may be relatively straightforward to determine the security's value. For example, if one wanted to know the value of a share of stock in Apple, the current price of the company's shares on the NASDAQ stock exchange is likely to be the best estimate. This price represents the market consensus view as to future cash flows and the risks associated with the stock.

However, many financial instruments (e.g., some bonds and derivative products) do not trade on exchanges. Instead they are traded over the counter. The OTC market is comprised of parties (e.g., dealers and investment managers) who trade bilaterally or via interdealer brokers. Even for those instruments that are traded on exchanges, some may not trade frequently enough (or in large enough quantities) to allow any observed prices to provide a reliable estimate of the security's value at a particular point in time.

Where there is less transparency as to pricing, values may need to be estimated using observed benchmarks or valuation models. The next section discusses some concepts that are important when estimating values for derivatives.

Important concepts for valuing derivatives

For the purpose of explaining some basic derivative valuation concepts, I will use the example of a simple European[11] call option on a publicly traded stock. There are three main approaches used to value such derivatives: the Black–Scholes model, the binomial model and Monte Carlo simulation.[12] While variants of these approaches are also employed for some derivatives, a description of these approaches is sufficient to provide an illustration of some key concepts.

The payoff at maturity to a call option will either be zero (if the then-current market price is less than or equal to the exercise price, also referred to as 'out of the money') or positive (if the then-current market price is greater than the exercise price, also referred to as 'in the money'). The valuation approaches discussed below attempt to estimate the value of the option at a time before maturity, given the then-available information.

Note that use of a model to value a financial instrument can introduce an additional risk – model risk. Model risk is the risk that the valuation may be unreliable owing to flaws in the assumptions of the model or in its implementation.

10 Nassim Taleb, *Dynamic Hedging: Managing Vanilla and Exotic Options* (New York: John Wiley & Sons, 1997), p. 68.

11 A European option can only be exercised at the maturity date. An American option can also be exercised at any date before the maturity date.

12 While one could employ a Monte Carlo simulation, this is uncommon for these types of derivatives.

Black–Scholes model

The Black–Scholes model provides pricing formulas for European call (and put) options on non-dividend paying stocks. The formulas have a closed-form solution meaning that they can be solved when the input parameters are known. The pricing formulas require at least five inputs: the current price of the underlying stock, the exercise price of the option, the risk-free rate of return, volatility of the underlying asset, and time to expiration of the option. Most of these inputs are usually relatively easy to determine – the exception being volatility. Volatility is a measure of the uncertainty or variability of returns on an asset. Volatility, if necessary, may be estimated from historical returns on an asset (referred to as 'historical volatility'). The volatility of the underlying asset can also be estimated (or derived from) the observed prices of options traded in the markets (referred to as 'implied volatility'). Note that in the latter case, the market price of the call is an input and is used in conjunction with the other inputs described above (except volatility, of course) to solve the equation for the volatility of the underlying asset implied by the values of the inputs.

A discussion of the derivation of the Black–Scholes formulas is beyond the scope of this chapter. However, it is worth noting that, at its core, the model relies on a model of how the stock price moves and on a 'non-arbitrage' argument. In brief, the argument rests on the fact that at any given moment one can combine the underlying shares and the option in question to create a riskless portfolio – one whose value is known with certainty regardless of how the stock price moves. This implies that the portfolio earns the risk-free rate of return (as it is riskless because its value is known with certainty) and allows one to solve for the value of the option.[13]

Variations and extensions of the Black–Scholes option pricing formulas can be used to value other types of derivatives (e.g., options on dividend paying stocks and options on futures).

Binomial model

The binomial model is a numerical method, meaning that it employs an algorithm to estimate the solution being sought, in this case, the price of a call option. Similarly to the Black–Scholes formula, it is based upon a 'non-arbitrage' assumption. The model divides the life of the option into discrete time intervals, and assumes that in each interval the share price can either go up or down. By combining positions in shares and options, one can create a hedged portfolio where the payoff at the end of each time interval is known with certainty. Again, this means there is no risk associated with the hedged portfolio and that it must earn a risk-free rate of return. By discounting the (known) payoff of the hedged portfolio at the risk-free rate, one can solve for the value of the option at the beginning of each time interval. This process can be used iteratively (through backwards induction) to solve for the value of the option at the beginning of the first time interval (i.e., on the valuation date).

13 Also, the Black–Scholes formula does not make any assumptions regarding investor preferences. This means that derivative securities can be evaluated for any investor regardless of their risk preferences.

A link between valuations using the Black–Scholes model and the binomial model is that as the time intervals considered get smaller, the value obtained using the binomial model will converge to that using the Black–Scholes model.

Estimating actual probabilities of an up or down movement of the share price in each interval is not required in the binomial model, as the outcome for the hedged portfolio is the same regardless of these. However, one can use the binomial model to solve what are referred to as 'risk-neutral' probabilities of an up or down movement in the share price. These probabilities are just mathematical (modelling) devices and are generally different from the actual probabilities of an up or down movement of the share price.

Monte Carlo simulation

Monte Carlo simulation is a method of modelling an uncertain outcome (for example, the movement of a share price) by sampling randomly from a universe of potential outcomes. For the value of a European call option, for example, Monte Carlo techniques involve simulating potential paths that the underlying share price could take (using a standard model of asset price behaviour such as that in the Black–Scholes model) and then determining the payoffs to the option for each of those various paths. The average of the – appropriately discounted – values that one computes is the estimated solution to the exercise. In general, the accuracy of estimates increases with the number of paths or universes that the modeller generates. When valuing a European option, as the time intervals in the simulation get smaller, the valuation result converges to that given by the Black–Scholes formula.

Choice of model

One or more of these models may be appropriate for a particular valuation exercise, depending upon the characteristics of the derivative to be valued. For a simple European call option, use of the Black–Scholes option pricing formula may be appropriate. Another approach (for example, the binomial model) could be used to provide further support to the valuation result.

While the Black–Scholes option pricing formulas are relatively straightforward to use, for certain types of derivatives a numerical method may be more appropriate. For example, American options are often valued using the binomial model, as this approach allows for the possibility of early exercise. Some derivatives (for example, Asian options) are path dependent, meaning that their value is determined not only by the price of the reference asset at the derivative's maturity, but also by the path that the reference asset's price took before maturity. Such cases are among those where practitioners typically use Monte Carlo simulation techniques to estimate prices.

Some reasons why practitioners may arrive at different values for the same financial instrument (and hence differing damages in some cases)

In financial services arbitrations, both claimants and respondents may rely upon expert evidence regarding the valuation of financial instruments. It is not unusual for practitioners to arrive at different values. Some of the reasons for this are discussed below. In summary, they are because of differences in approach and assumptions.

Differing valuation dates

Practitioners may choose (or be instructed to use) different valuation dates, which may result in different valuations for the same asset.

Differing estimates of future cash flows

Practitioners may arrive at different estimates of future cash flows to be received from an asset. For example, when valuing a private company, practitioners may make different assumptions about the company's future profitability. A practitioner may rely upon management's projections of cash flows, while another may adjust the estimates (or develop independent forecasts) to reflect different assumptions about future revenue growth or future costs.

Assumptions about a company's future profitability may have implications for the conclusions an expert reaches concerning the company's ability to make interest payments on debt and pay dividends to equity investors, thereby affecting the practitioners' estimates of the value of those instruments.

Differing estimates of risk premia

Practitioners may also arrive at different estimates of the applicable discount rates to be applied to estimated future cash flows. If one is valuing the equity of a company, the applicable discount rate applied to estimated future cash flows to equity is referred to as the cost of equity. Similarly, estimated future cash flows to debt are discounted at the company's cost of debt. Total estimated future cash flows to the firm are discounted at the weighted average cost of capital (WACC), which is the average of the company's cost of equity and cost of debt, weighted by the relative proportion of each type of financing within the company's capital structure.

A company's cost of equity reflects the expected return demanded by equity investors. There are different models that practitioners can use to estimate a company's cost of equity. One widely used model is the capital asset pricing model (CAPM). While a full discussion of the model and its assumptions is outside the scope of this chapter, in short, the CAPM model estimates a company's cost of equity as a function of a risk-free rate of return, a market equity risk premium, and the company's beta. (Beta is a measure of a company's exposure to market risk.)[14] Practitioners may also incorporate additional risk premia in their cost of equity estimates for a company. Examples of these are a country risk premium and a size premium. A country risk premium reflects the additional risk of an equity investment in a particular country (typically an emerging market) relative to an equity investment in a more mature market (for example, the United States). A size premium reflects the additional risk of an equity investment in a smaller company (by market capitalisation) relative to an equity investment in a larger company. Practitioners may make different assumptions regarding the presence and size of risk premia in a cost of equity estimate.

The cost of debt is the rate at which a company can borrow money.[15] The rate (or yield) demanded by debtholders will be a function of both the general level of interest rates and

14 Aswath Damodaran, *Investment Valuation*, Second Edition, p. 182.

15 Ibid., p. 669.

issuer-specific credit risk. All else being equal, the higher the risk of default on the debt, the higher the yield that will be demanded by debt holders. If a company has issued debt, the yield on that debt may be an estimate of the company's cost of debt. If a company has no debt, the cost of debt for comparable companies (e.g., companies in the same industry or with the same credit rating) may be used as a proxy. Adjustments may be required to reflect the unique circumstances of the issuer and issue. Experts may disagree on the presence and nature of such adjustments.

Differing estimates of the value of control

When valuing an ownership stake in a company, an important consideration is the value of control. Market participants may be willing to pay a premium for an ownership stake that gives the purchaser control over the direction of the company (e.g., a majority stake). This premium is referred to as a control premium. Similarly, a minority stake of a company may be deemed to be worth less than the pro rata portion of the company's value as a result of the absence of control. In such a case, application of a minority discount may be appropriate. In performing a valuation, practitioners may make different assumptions regarding the presence and magnitude of any control premium or minority discount.

Differing models and model inputs

In valuing derivatives, practitioners may use different models. Moreover, even if practitioners use the same model, they may use different inputs in the model, resulting in different valuations. For example, when using the Black-Scholes model, practitioners may have different estimates of expected future volatility. When using Monte Carlo simulation techniques, practitioners may use a different number of simulations, which can affect the results. All else being equal, the higher the number of simulations, the more precise the valuation result.

Differing assessments of market conditions

Valuation results may need to be adjusted to reflect market conditions on the valuation date. For example, if markets for a particular asset are relatively illiquid, model-derived valuations may need to be adjusted to reflect this. Practitioners may make different assumptions regarding the presence and size of any such adjustments.

How changes in financial regulation can affect valuation

In general, the likelihood and timing of future cash flows to be received from an asset can be affected by financial regulation. Moreover, an unstable regulatory environment can increase the risk to investors. While country risk is meant to capture this risk, in some cases it may not (or may not fully).

Actions by governments and financial regulators can affect the value of financial instruments, potentially resulting in disputes. In some cases, these disputes may be subject to international arbitration under bilateral investment treaties. Experts may be called upon to estimate damages to an investor, which may require estimating the effect of an alleged action on an instrument's value.

For example, several disputes arose in relation to oil hedging deals between Ceylon Petroleum Corporation (CPC), a Sri Lankan state-owned enterprise, and a number of banks, including Standard Chartered Bank (SBC), Citigroup and Deutsche Bank. Between 2007 and mid-2008, CPC entered into derivative contracts with the banks in an attempt to hedge its exposure to oil prices. When oil prices declined, leaving CPC faced with substantial payments to the banks, the Sri Lankan Central Bank issued an order that suspended payments on the transactions.[16] This order affected both the likelihood and timing of cash flows, thereby affecting the value of the transactions. SBC brought a case in London High Court,[17] while Deutsche Bank[18] and Citigroup[19] filed arbitration claims with ICSID and the LCIA, respectively, claiming losses as a result of the Sri Lankan Central Bank's actions. SBC was awarded nearly $162 million plus interest by the London High Court, and Deutsche Bank was awarded more than $60 million by an ICSID arbitration panel. The claim that Citi brought before LCIA was rejected.

Another example of an action by a government or financial regulator affecting the value of financial instruments is the Croatian government's 2015 borrower relief law in relation to Swiss franc-denominated mortgages.[20] In the 2000s, tens of thousands of borrowers in Croatia took out mortgage loans or other debt denominated in Swiss francs.[21] When the Swiss central bank lifted its cap on the value of the franc relative to the euro in early 2015, the value of the franc relative to the euro and the kuna increased substantially. These currency movements increased the debt burden for borrowers of Swiss franc-denominated mortgages. In 2015, the Croatian government enacted a law retroactively converting such mortgage loans from Swiss francs to euros in an attempt to provide relief to borrowers.[22] The retroactive conversion changed the future cash flows that lenders could expect from the mortgages, thereby changing the value of the mortgages and resulting in losses to lenders. In 2016, two units of UniCredit SpA initiated an ICSID arbitration proceeding against the Republic of Croatia in relation to the retroactive conversion law.[23] In 2017, three additional ICSID arbitration proceedings were filed by financial institutions against

16 *Deutsche Bank AG v. Democratic Socialist Republic of Sri Lanka* (ICSID Case No. ARB/09/2), 'Award', 31 October 2012, Section 425.

17 Thomson Reuters, 'UPDATE 1-Sri Lanka's CPC owes nearly $162 mln over oil hedge', 11 July 2011. Thomson Reuters, 'Sri Lanka's CPC loses $162 mln appeal against London ruling', 27 July 2012. *The Sunday Times of Sri Lanka*, 'Rs. 7 billion settlement ends oil hedging dispute with SCB', 30 June 2013.

18 *Deutsche Bank AG v. Democratic Socialist Republic of Sri Lanka* (ICSID Case No. ARB/09/2), 'Award', 31 October 2012.

19 Thomson Reuters, 'Arbitrator voids Sri Lanka oil hedge deal with Citibank-sources,' 1 August 2011.

20 'International Remedies For Foreign Investors in Croatia And Poland: Mortgage And Consumer Loan Conversion Legislation', Mondaq Business Briefing, 29 October 2015.

21 'UniCredit Takes Croatia To ICSID Over Loan Currency Policy', Law360, 19 September 2016.

22 'International Remedies For Foreign Investors in Croatia And Poland: Mortgage And Consumer Loan Conversion Legislation', Mondaq Business Briefing, 29 October 2015. '2016 Article IV Consultation – Press Release; Staff Report; and Statement by the Executive Director for the Republic of Croatia', International Monetary Fund, June 2016.

23 *UniCredit Bank Austria AG and Zagrebacka Banka d.d. v. Republic of Croatia* (ICSID Case No. ARB/16/31). 'UniCredit Takes Croatia To ICSID Over Loan Currency Policy', Law360, 19 September 2016.

the Republic of Croatia in relation to this action.[24] All four of these cases are still pending. There is also a pending ICSID arbitration proceeding in relation to a similar loan conversion law enacted by Montenegro in 2015.[25]

Several disputes also arose resulting from actions taken by the government of Cyprus and European regulators during Cyprus's debt crisis. In mid-2012, Cyprus Popular Bank (also referred to as Laiki Bank) raised €1.8 billion in equity in order to meet capital requirements from the European Banking Authority (EBA).[26] The government of Cyprus acquired the vast majority of the equity, taking an 84 per cent stake in the bank.[27] Greek investment group Marfin (MIG) filed an international arbitration claim through ICSID against the Republic of Cyprus,[28] claiming that the government's action diluted its shareholding in the bank.[29] Subsequently, in early 2013, the government of Cyprus agreed with the Eurogroup to the terms of a €10 billion bailout, with the support of the European Commission, the European Central Bank and the International Monetary Fund. The terms of the agreement called for a 'bail-in', which imposed losses on unsecured depositors in the Bank of Cyprus and Cyprus Popular Bank.[30] In response, more than 600 Greek depositors and bondholders filed an international arbitration claim through ICSID against the Republic of Cyprus.[31] In addition, two Polish depositors with the Bank of Cyprus brought a claim against the Republic of Cyprus before the Stockholm Chamber of Commerce (SCC). In early 2017, the SCC rejected the Polish depositors' claim, ruling that the haircut imposed on deposits did not amount to unlawful expropriation under the terms of the Poland–Cyprus BIT.[32] In July 2018, a tribunal dismissed the claim filed by Marfin.[33] The other case before ICSID is still pending.

In yet another matter, in June 2017, the European Central Bank (ECB) concluded that Spain's Banco Popular was 'failing or likely to fail' because of deterioration of its liquidity position.[34] The European Single Resolution Board decided to transfer Banco

24 *Raiffeisen Bank International AG and Raiffeisenbank Austria d.d. v. Republic of Croatia* (ICSID Case No. ARB/17/34); *Addiko Bank AG and Addiko Bank d.d. v. Republic of Croatia* (ICSID Case No. ARB/17/37); *Erste Group Bank AG and others v. Republic of Croatia* (ICSID Case No. ARB/17/49).

25 *Addiko Bank AG v. Montenegro* (ICSID Case No. ARB/17/35).

26 State aid: Commission temporarily approves rescue recapitalisation of Cyprus Popular Bank', European Commission Press Release, 13 September 2012.

27 'Gov't pays out U1.79 bln, takes 84% stake in Laiki', *Financial Mirror*, 4 July 2012.

28 Marfin Investment Group Press Release, 23 January 2013. *Marfin Investment Group Holdings SA, Alexandros Bakatselos and others v. Republic of Cyprus* (ICSID Case No. ARB/13/27). 'DJ Greece's Marfin Seeks $1 Billion from Defunct Cyprus Bank', Dow Jones Newswires, 3 September 2013.

29 'Greece's Marfin investment fund in legal move over Popular stake', Reuters News, 18 January 2013.

30 'Agreement for a Financial Assistance to the Republic of Cyprus', Ministry of Finance Announcement, 16 March 2013. 'Cyprus Bailout: Potential Recourse For Lost Investments', Mondaq Business Briefing, 25 April 2013.

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Popular to Banco Santander, with the Spanish National Resolution Authority responsible for implementation of the bank's resolution.[35] All Banco Popular shares (Common Equity Tier 1) and Additional Tier 1 securities (including €1.25 billion par value of contingent convertible securities) were written down fully before the transfer. Higher ranking Tier 2 instruments were converted into new shares and then transferred to Banco Santander for €1.[36] Banco Popular's resolution resulted in losses to investors holding the bank's securities, and several groups of investors have already filed lawsuits with the European Court of Justice regarding the resolution.[37] It is possible that foreign investors may pursue international arbitration claims under the BITs that Spain has in place with other countries.[38]

Conclusion

An increasing number of financial services disputes are being heard before international arbitration tribunals. Estimating quantum in these types of disputes often involves the valuation of complex financial instruments and typically requires expert evidence. It is not unusual for practitioners to arrive at different values for financial instruments because of various differences in approach and assumptions.

35 'The Single Resolution Board adopts resolution decision for Banco Popular', Single Resolution Board, 7 June 2017.

36 'Notice summarising the effects of the resolution action taken in respect of Banco Popular Español pursuant to Article 29(5) SRMR', Single Resolution Board, 7 June 2017. 'Agreement on Implementation Measures for Banco Popular Español', Fund for Orderly Bank Restructuring, 7 June 2017.

37 'Bondholder in Spain's failed Banco Popular bid to reverse rescue', Reuters News, 17 August 2017.

38 See, for example, 'Report: Mexican investor in Banco Popular hires US firm to recoup losses', SNL European Financials Daily, 6 July 2017.

Appendix 1

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