

# International Finance & Treasury

Weekly Report for International Finance Executives

## B2B Payment Problems

March 5, 2001

Giving business customers the opportunity to order products and services on-line is only doing half the job.

Paul Walsh, Clareon Corporation

Every day, more and more businesses rush headlong into the world of e-commerce. Whether they are an established industrial giant, joining one of the new on-line business-to-business exchanges, or a small, family-owned business hanging up its shingle somewhere in cyberspace, these companies are hoping to leverage the power of the Internet to reduce the costs of selling and purchasing goods and services.

The truth is, however, that these companies are only partially realizing the gains possible from on-line transactions.

That's because, while businesses may make commitments on-line to exchange goods, they're paying for them in the least efficient, most expensive way possible—the paper check.

The check represents payment technology that predates the Civil War. It is also a problem because the efficiency and cost savings generated from doing business on-line can quickly evaporate when a company uses an inefficient and expensive, paper-based process to settle the transaction.

No form of payment currently employed on-line is exempt from the scourge of the paper trail, or its associated costs. The payment mechanism is the one area where the technology hasn't kept up. Banks in particular are saddled with legacy money-transfer technology based on Auto-  
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## Keys to the Kingdom

Building blocks used by financial engineers and some skyscraping structures derived from them—first of two parts.

Warren Edwardes, Delphi Risk Management Limited

*“Derivatives by their nature do not introduce risks of a fundamentally different kind or of a greater scale than those (risks) already present in the financial markets.”—Paul Volcker, former Federal Reserve Chairman*

This article provides the key to understanding and practicing financial product development. It explains how such products have been built from four gene pools. However, it also demonstrates that an understanding of this process provides the basic recipe for creating an infinite variety of financial products.

### The Four Keys

There are four key financial instruments that can be combined in various forms, with each other or various forms of themselves to form all other financial products. These key products are the *spot contract*, *forward contract*, *option contract* and *deposit contract*.

Excepting a small number of highly exotic and marginally useful financial instruments, every financial instrument already created or likely

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Don't fool yourself about the benefits of e-commerce. Without a true “end-to-end” system, encompassing orders and payments, you are still trapped in the “paper chase.”

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## Structured Finance for Energy

Some observers have predicted that securitization will become increasingly popular for financing in the energy industry.

Christopher Prior and Marc Hammerson, Vinson & Elkins

**Historically, securitization of revenues obtained from debt instruments, such as mortgages, car finance and credit card loans has dominated the asset-backed finance sector. The homogeneous nature of these instruments allows large numbers of them to be packaged in a manner that produces a relatively steady and secure cash flow.**

Since the emergence in the 1980s of a securitization market, securities based on other types of assets have also been successfully sold by sponsors wishing to raise money using this technique. Examples include trade receivables, real property and

especially varieties of volumetric production payments, continue to be used as a means of financing acquisition and/or ownership of oil and gas properties. Parties are achieving substantial accounting and tax advantages that can be achieved through use of volumetric production payments in appropriate circumstances.

For financing purposes, volumetric production payments are usually purchased by a special purpose vehicle (SPV), funded with a small amount of equity and a large quantity of senior debt. The volumes of production that are to be received on the production payment are hedged creating a predictable future cash flow stream that is attractive to energy lenders.

In a very unusual, but innovative, pipeline acquisition financing structure, the seller of the pipeline system was able to book operating earnings from revenues to be received for a period after the date of the acquisition agreement and the purchaser was also able to book operating earnings from the pipeline during the same period. Prior to execution of the acquisition agreement, the seller entered into a synthetic lease of the pipeline with an international bank. The acquisition agreement provided for the closing of the sale of the pipeline to occur approximately two years after the date the agreement was signed.

As companies continue to focus more intensely on accounting consequences of their operations, off-balance-sheet structures for fi-

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**As companies focus on accounting consequences of their operations, off-balance-sheet structures for financing reserve acquisitions are gaining favor.**

equipment leases. These assets are also packaged in a manner capable of producing a relatively steady and secure income stream.

Financing based on the revenues obtained by energy companies from the sale of their products or services, or the operations of particular plants, is not new. For years, energy companies have incurred bank loans or sold their debt securities in the private market, in deals in which the loans or securities are payable out of revenues derived from the operation of a particular oil and gas field, pipeline or other project.

Innovative uses of production payments,

<i>International</i> <b>Finance &amp; Treasury</b> The International Business Information Source™ (ISSN 1070-9215) Vol. 27, No. 10 March 5, 2001	<b>EDITORIAL OFFICE</b> WorldTrade Executive, Inc. P.O. Box 761 Concord, MA 01742-0761/USA (978) 287-0301 Phone (978) 287-0302 Fax <a href="http://www.wtexec.com">www.wtexec.com</a>	<b>PUBLISHER</b> Gary A. Brown, Esq. <b>MANAGING EDITOR</b> George T. Cassidy <b>CONTRIBUTING EDITOR</b> Scott P. Studebaker, Esq. <b>BUSINESS MANAGER</b> Ken Parker
PUBLISHED WEEKLY (EXCEPT THE FIRST WEEK OF SEPTEMBER AND LAST WEEK OF DECEMBER) FOR SUBSCRIBERS ONLY		
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SUBSCRIPTION INFORMATION: Annual subscription: US\$1295 (add \$50 for non-US postage) Single copy: US\$26		

## Piling On

The Senate's roasting of three leading American banks may represent a little too much oversight; national interest or self interest?

Scott E. Pardee

Last week, the Senate permanent subcommittee on investigations called representatives of *J.P. Morgan Chase*, *Bank of America*, and *Bank of New York (BoNY)*, for hearings on possible money laundering activities of correspondent banks. At issue was a staff report that the banks had been sloppy in monitoring activities of *Swiss American Holding Company's* banks in Antigua and Barbuda, which "served as repositories of illicit funds from several illegal operations."

This is part of an ongoing struggle within the banks themselves, and between the banks and the U.S. government.

As fiduciary institutions, banks present themselves as prototypical, law-abiding members of society. They also take pains to protect confidentiality of customers' holdings and transactions.

Of course, any number of people and institutions seek to conduct illicit business through banks, taking advantage of this con-

fidentiality. Indeed, crooks are willing to pay extra to make sure that banks shield them from tax authorities and the police. No one likes to turn aside an especially lucrative account, so banks have an incentive to accept accounts of shady customers.

However, some shady customers have been known to play rough.

Banks deal with the public through a wide range of outlets and are subjected to all sorts of thuggery, from hold-ups to Mafia-style extortion. A bank that becomes known as an easy mark for money launderers and the like soon finds itself a mark for criminal activity on a grander scale.

Most banks have learned that easy profits come with greater costs down the road.

Every major bank has a code of ethics, and one of the first rules is "know your customer." This is especially difficult in today's world of

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## Exchange Strategies

Chalk players expect a move may be at hand to restore equilibrium among the "Big Three," but they sometimes go broke, too.

Brendan Murphy

Economic indicators in the U.S. and, to an increasing extent, in Europe indicate the slowdown is taking hold. On the other hand, there is some indication that the angle of descent has become less steep, with this quarter suggesting a flat second quarter and thus the possibility of a gradual resumption through the second half of this year.

That would be our reasonably optimistic outlook taking into account a strong U.S. and European financial sector, and consumers in both economic zones still ready to spend—though their willingness to keep doing so is a critical factor in averting recession.

The Japanese economy remains a focus of concern with fresh weakness setting in, such that the *Bank of Japan* (BoJ) last week made an additional concession on the interest-rate

front. The BoJ reduced the call money rate 10 basis points, to 0.15 percent, similarly paring the discount rate to 0.25 percent.

Governor *Masaru Hayami* of the BoJ also indicated that the bank was looking at the possibility of outright purchases of long-term government bonds to provide additional liquidity to the financial sector. Quantitative easing was not mentioned, but it is about the only tool the central bank has left.

Financial market participants were anxiously waiting for the release of February U.S. jobs data, which *J.P. Morgan Chase* economists are predicting will show a weak gain of 75,000 jobs in the non-farm payrolls component and a 65,000 increase in private employment from the survey. This is off a good deal from the 143,000 average monthly gain for private payrolls in 2000.

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### Also in This Issue...

*Scott Pardee* thinks the Senate's recent review of major bank's money laundering controls is probably overkill.

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Time and circumstances may be right for the dollar, yen and euro to strike a trilateral balance, believes *Brendan Murphy*.

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*F&T's* weekly "World Value of the Dollar" exchange rate supplement.

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Rates, trends and forecasts for major currency pairs.

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# Bank Regulation/Exchange Strategies

## *Piling, from Page 3*

global finance and the Internet.

Banks have sophisticated systems to review new accounts and to monitor the flow of transactions. Even so, crooks are constantly devising techniques to challenge the latest technologies banks put in place.

That said, in my experience, the weak link is not technology, it is people, insiders who fail to live up to the code.

Banks today use advanced mathematical models to deal with many categories of risk, but in this instance, the major risk is “reputation risk.” BoNY knows this in spades—a historically blue-chip bank that got stung by a Russian Mafia ring, through some Russian *emigrés* it had hired.

The U.S. government seeks to root out crime, often using “money trails” through banks to catch and convict crooks. They also force crooks to use increasingly expensive means of transferring funds, a subtler form of deterrent. Thus, government agencies and banks have every reason to work together to reduce criminal access to the banking system.

However, government itself can be incredibly intrusive. The U.S. has a panoply of regulators who are examining the banks’ records, and investigators who are gathering evidence on criminal activity. These people are professional and, by all accounts, are doing their job satisfactorily.

The U.S. has a panoply of professional regulators who are examining banks’ records, and investigators who are gathering evidence on criminal activity. These people, by all accounts, are doing their job satisfactorily.

## *Strategies, from Page 3*

Unemployment is expected to rise by 0.1 percent, to a 4.3 percent rate, following a 0.2 percent gain in January.

Given the volatility of these reports, however, we would not be surprised to see some substantially weaker numbers.

### **FOMC to Deliver the Cut**

**Federal Reserve Board** Chairman *Alan Greenspan* put paid to market talk that the Fed would cut interest rates by another 50 basis points before the meeting of the **Federal Open Market Committee** (FOMC) on March 20<sup>th</sup> and 21<sup>st</sup>. We expressed our skepticism regarding such an inter-meeting easing in these columns last week. However, readers should not rule out a rate cut if the jobs data is particularly ugly; such reports tend to be picked up with alacrity by the media and reported without much in the way of nuance. So the perspicacious Fed chief might see the need to counter erosion of sentiment.

Readers should not rule out a rate cut if the jobs data is particularly ugly; such reports tend to be picked up with alacrity by the media and reported without much in the way of nuance.

If that is the case, why is a subcommittee of the Government Affairs Committee of the U.S. Senate making a show out of a hearing with three of the best-managed banks in the country? Anyone in the business knows banks that run much greater ethical risks than these particular institutions.

Unfortunately, with Congress these days, we must also follow the money. This was eminently clear in the protracted negotiations over Glass-Steagall reform. Members of Congressional committees use various means to extract campaign funds from banks and bankers, including calling public hearings to embarrass them.

It may be painful to state, but an objective observer can only conclude that the only thing these three banks did wrong was not contribute enough to the campaigns of the members of this particular subcommittee. This will remain the case until the president and Congress deal with the issue of campaign finance reform. □

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As noted, European growth is starting to respond to global conditions despite all of the positive factors: relatively accommodative monetary conditions; strong fiscal stimulus; and a diminution of household susceptibility to reverse wealth effects following the equities correction. German gross domestic product (GDP) grew by a 0.2 percent in real terms in the fourth quarter of 2000, versus the third period, and third quarter GDP was revised down to 0.3 percent from a previously estimated 0.6 percent gain.

Thus, “it is now clear that German growth slowed markedly, to an annualized pace of 1 percent in the second half of last year,” conclude analysts at J. P. Morgan Chase, “from an annualized pace of 4.3 percent recorded in the first half.” This is not good.

Of further concern, this sharp slowdown came on the back of collapsing domestic final demand in the second half of last year, to something “close to a standstill” from a contribu-

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## Bank of America's World Value of the Dollar as of March 2nd

The table below gives the rates of exchange for the U.S. dollar against various currencies as of Friday, March 2nd, 2001. The exchange rates are middle rates between the buying and selling rates as quoted between banks, unless otherwise indicated. All currencies are quoted in foreign currency units per U.S. dollar except in certain specified areas. All rates quoted are not intended to be used as a basis for particular transactions. *Bank of America* does not undertake to trade in all listed foreign currencies, neither does *Bank of America* assume responsibility for errors.

EUR=\$0.92937      SDR=\$1.29233      3-month LIBOR 5.05      3-month SIBOR 5.09      6-month LIBOR 4.92      6-month SIBOR 4.95

Country	Currency	Value of U.S. Dollar	Country	Currency	Value of U.S. Dollar	Country	Currency	Value of U.S. Dollar
Afghanistan	Afghani (c)	4750.00	Georgia	Lari	1.97	Pakistan	Rupee	60.345
Albania	Lek	142.30	Germany	Mark	2.1045	Panama	Balboa	1.00
Algeria	Dinar	73.39	Ghana	Cedi	7350.00	Papua N.G.	Kina	3.2415
American Samoa	US\$	1.00	Gibraltar	Pound *	1.4657	Paraguay	Guarani (d)	3750.00
Andorra	Peseta	179.031	Greece	Drachma (3)	366.647	Peru	Nuevo Sol (d)	3.517
Andorra	Franc	7.0581	Greenland	Krone	8.0247	Philippines	Peso	48.425
Angola	Kwanza (5)	18.2458	Grenada	E. Car. \$	2.70	Pitcairn Island	NZ Dollar	2.2954
Antigua	E. Car. \$	2.70	Guadeloupe	Franc	7.0581	Poland	Zloty (o)	3.965
Argentina	Peso	1.00	Guam	US\$	1.00	Portugal	Escudo	219.7182
Armenia	Dram	552.18	Guatemala	Quetzal	7.7865	Puerto Rico	US\$	1.00
Aruba	Florin	1.79	Guinea Rep.	Franc	1865.00	Qatar	Riyal	3.64
Australia	Dollar	1.8945	Guinea Bissau	Franc	705.8082	Rep. Macedonia	Dinar	64.045
Austria	Schilling	14.8061	Guyana	Dollar	180.50	Rep. Yemen	Rial (a)	161.458
Azerbaijan	Manat	4558.00	Haiti	Gourde	23.00	Ile de la Reunion	Franc	7.0581
Bahamas	Dollar	1.00	Honduras	Lempira (d)	15.22	Romania	Leu	27126.00
Bahrain	Dinar	0.377	Hong Kong	Dollar	7.7998	Russia	Ruble	28.684
Bangladesh	Taka	54.125	Hungary	Forint	284.575	Rwanda	Franc	359.0281
Barbados	Dollar	2.00	Iceland	Krona	85.54	San Marino	Lira	2083.4221
Belarus	Ruble	1210.00	India	Rupee (m)	44.562	Sao Tome/Principe	Dobra	2390.98
Belgium	Franc	43.4056	Indonesia	Rupiah	9875	Saudi Arabia	Riyal	7.3504
Belize	Dollar	2.00	Iran	Rial (o)	1752.50	Senegal	CFA Franc	705.8082
Benin	CFA Franc	705.8082	Iraq	Dinar (o)	0.3124	Seychelles	Rupee	6.467
Bermuda	Dollar	1.00	Ireland	Punt *	1.1801	Sierra Leone	Leone	1899.095
Bhutan	Ngultrum	46.542	Israel	New Shekel	4.1253	Singapore	Dollar	1.748
Bolivia	Boliviano (f)	6.43	Italy	Lira	2083.4221	Slovakia	Koruna	46.8325
Bolivia	Boliviano (o)	6.07	Jamaica	Dollar (o)	45.50	Slovenia	Tolar	230.265
Bosnia Herz.	Konv. Marka	2.1045	Japan	Yen	118.575	Solomon Is.	Solomon \$	5.1125
Botswana	Pula	5.4481	Jordan	Dinar	0.711	Somali Rep.	Shilling (d)	2620.00
Bouvet Island	Krone	8.7915	Kazakhstan	Tenga	145.335	South Africa	Rand (c)	7.735
Brazil	Real	2.0335	Kenya	Shilling	78.005	Spain	Peseta	179.031
Brunei	Dollar	1.748	Kiribati	Aus. Dollar	1.8945	Sri Lanka	Rupee	86.05
Bulgaria	Lev	2.086	Korea, North	Won	2.20	St. Christopher	E. Car. \$	2.70
Burkina Faso	CFA Franc	705.8082	Korea, South	Won	1262.50	St. Helena	Pound *	1.4657
Burundi	Franc	740.802	Kuwait	Dinar	0.3063	St. Lucia	E. Car. \$	2.70
Cameroun	CFA Franc	705.8082	Kyrgyzstan	Som	48.304	St. Pierre/Miq'lon	Franc	7.0581
Canada	Dollar	1.5447	Laos	Kip	7600.00	St. Vincent	E. Car. \$	2.70
Cape Verde Is.	Escudo	119.429	Latvia	Lat	0.6167	State Cambodia	Riel	3835.00
Cayman Is.	Dollar	0.82	Lebanon	Pound	1507.50	Sudan	Pound (c)	2560.00
Cent. Af. Rep.	CFA Franc	705.8082	Lesotho	Maloti	7.735	Sudan	Dinar	256.00
Chad	CFA Franc	705.8082	Liberia	Dollar	1.00	Suriname	Guilder	981.00
Chile	Peso (m)	572.55	Libya	Dinar	0.5357	Swaziland	Lilangeni	7.735
Chile	Peso (o)	518.37	Liechtenstein	Franc	1.6434	Sweden	Krona	9.657
China	Renminbi	8.2782	Lithuania	Litas	4.001	Switzerland	Franc	1.6434
Colombia	Peso (o) (1)	2265.50	Luxembourg	Franc	43.4056	Syria	Pound	52.50
CIS	Ruble (m)	28.684	Macao	Pataca	8.0572	Taiwan	Dollar (o)	32.375
Comoros Rep.	Franc	529.3562	Madagascar	Franc	6400.00	Tanzania	Shilling	825.25
Congo Rep.	CFA Franc	705.8082	Malawi	Kwacha	80.10	Thailand	Baht	43.40
Congo Dem. Rep.	Franc (4)	4.4999	Malaysia	Ringgit	3.80	Togo Rep.	CFA Franc	705.8082
Costa Rica	Colon	321.76	Maldives Is.	Rufiyani	11.77	Tonga Is.	Pa'anga	2.0137
Cote d'Ivoire	CFA Franc	705.8082	Mali Republic	CFA Franc	705.8082	Trinidad/Tobago	Dollar	6.22
Croatia	Kuna	8.2479	Malta	Lira *	2.2825	Tunisia	Dinar	1.3606
Cuba	Peso	1.00	Martinique	Franc	7.0581	Turkey	Lira (8)	92500.00
Cyprus	Pound *	1.6157	Mauretania	Ouguiya	252.385	Turks & Caicos	US\$	1.00
Czech Republic	Koruna	37.137	Mauritius	Rupee	28.195	Tuvalu	Aus. Dollar	1.8945
Denmark	Krone	8.0247	Mexico	New Peso	9.68	Uganda	Shilling	1727.50
Djibouti	Franc	172.00	Moldova	Lei	12.3833	Ukraine	Hryvnia	5.4284
Dominica	E. Car. \$	2.70	Monaco	Franc	7.0581	United Kingdom	Pound *	1.4657
Domi. Rep.	Peso	15.75	Mongolia	Tugrik (m)	1098.00	Uruguay	Peso (m)	11.3925
Ecuador	Sucre (o) (2)	25000.00	Montserrat	E. Car. \$	2.70	U.A.E.	Dirhan	3.673
Egypt	Pound	3.85	Morocco	Dirham	10.6098	Uzbekistan	Sum	775.00
El Salvador	Colon (d)	8.752	Mozambique	Metical	17400.00	Vanuatu	Vatu	141.80
Eq'tl. Guinea	CFA Franc	705.8082	Myanmar	Kyat	6.5838	Vatican City	Lira	2083.4221
Estonia	Kroon	16.7156	Namibia	Dollar	7.586	Venezuela	Bolivar (d)	704.655
Ethiopia	Birr (o)	8.258	Nauru Is.	Aus. Dollar	1.8945	Vietnam	Dong (o)	14560.00
European EMU	Euro*	0.9294	Nepal	Rupee	74.3877	Virgin Island BR	US\$	1.00
Faeroe Is.	Krone	8.0247	Neth. Antilles	Guilder	1.79	Virgin Island US	US\$	1.00
Falkland Is.	Pound *	1.4657	Neth. Antilles	Florin	1.79	West. Samoa	Tala	3.3898
Fiji	Dollar	2.2321	Netherlands	Guilder	2.3712	Yugoslavia	New Dinar (7)	63.5289
Finland	Markka	6.3976	New Zealand	Dollar	2.2954	Zambia	Kwacha	3570.00
Fr. Pacific Is.	Franc	128.3286	Nicaragua	Gold Cordoba	12.90	Zimbabwe	Dollar (6)	55.08
France	Franc	7.0581	Niger Rep.	CFA Franc	705.8082			
French Guinea	Franc	7.0581	Nigeria	Naira (m)	112.00			
Gabon	CFA Franc	705.8082	Norway	Krone	8.7915			
Gambia	Dalasi	15.50	Oman Sultanate	Rial	0.385			

(n/a) Not Available. \* U.S. Dollar per national currency unit. (a) Parallel. (c) Commercial. (d) Free market. (f) Financial. (m) Market. (o) Official. (1) Colombian peso allowed to float freely on 9/27/99. (2) Ecuador introduces dollarization, 25,000 sucres to the dollar. (3) Greek drachma incorporates 3.5 percent revaluation on 1/15/00. (4) Congo Democratic Republic, formerly Zaire Democratic Republic, Congolese franc is new currency. (5) Angolan kwanza revalued on 12/13/99. (6) Zimbabwe dollar delvalued by approximately 24 percent on 2/8/00. (7) Yugoslavian new dinar is now "managed float," linked to euro/mark. (8) Turkish lira allowed to float freely on 2/22/01.

# Exchange Strategies

## Strategies, from Page 4

tion of around 3 percent to annualized growth in the first half of last year, continues the report. This stands in sharp contrast to the acceleration in domestic final sales late last year in France, they add.

In Germany, collapsing domestic final demand coincided with a strong rise in inventories—this is one reason not to jump to conclusions, J. P. Morgan Chase cautions, as “inventories are often the balancing item in the quarterly GDP reports.” Still, the sales-inventories gap signals a sharp production slowdown.

### Global Economy Shifts Gears

Setting aside the case of Japan, firmly ensconced in its role as Sick Man of the Global Economy, largely because of the ineptness and self-interested negligence of its political class, we are inclined to believe that what we are seeing represents a global shifting of gears rather than an outright stall. Considering what the global economy has been through in the past five years—the Asian Crisis, followed by the extraordinary boom of the late 1990s—it would be surprising if there were not a pause for consolidation and correction in certain instances, such as the overheated technology sector.

Whether the U.S. and thus the global economy can avert outright recession depends largely upon the U.S. consumer, who in turn

will be strongly influenced by corporate adjustments to inventory overhangs. Corporate downsizing has begun, but it remains to be seen if companies will cut back core staff or attempt to retain employees recruited at considerable effort and cost amidst the tight labor conditions of recent years.

Publicly-held U.S. companies are sensitive to quarterly earnings, so much of the downsizing to date reflects an effort to stay ahead of the cyclical curve. But those who cut too deeply risk finding themselves at a disadvantage if growth re-accelerates.

Conditions will probably get worse before they get better, though we may already be bumping along close to the bottom of the business cycle.

Decisive Fed action early this year could set the stage for a pickup in the second half of 2001, if not late in the first half, given our sense that the late-2000 slide has leveled off. The stock market could be the key element here, in that equities could start discounting a moderate recovery well before it is confirmed in the data. This would bolster household wealth and thereby stem the erosion in consumer confidence, encouraging a battered corporate sector to start thinking about increased investment in capital and staff.

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### Actual and Forecast FX Ranges, F&T Outlook for Major Currency Pairs (Exchange Rates from Thomson Financial/IFR, Boston)

Currency Pair	Prior Range	Forecast Range	Last Week	Last Seen	Change (%)	Two-Week Outlook
USD/Euro	0.9075–0.9380	0.9225–0.9575	0.9145	0.9325	+1.97%	Positive
DEM/USD	2.0851–2.1552	2.0426–2.1201	2.1387	2.0974	–1.93%	Cautious
JPY/USD	115.70–119.30	116.75–122.25	116.25	119.10	–2.45%	Positive
JPY/Euro	105.05–111.70	108.75–116.25	106.30	111.00	–4.42%	Positive
JPY/DEM	53.71–57.11	55.60–59.44	54.35	56.75	–4.42%	Positive
USD/GBP	1.4390–1.4765	1.4450–1.4750	1.4510	1.4680	–1.17%	Positive
GBP/Euro	0.6265–0.6415	0.6300–0.6450	0.6305	0.6345	–0.63%	Neutral
DEM/GBP	3.0488–3.1218	3.0323–3.1045	3.1020	3.0825	+0.63%	Neutral
CHF/USD	1.6395–1.6905	1.6250–1.6750	1.6785	1.6505	+1.67%	Neutral
CHF/Euro	1.5325–1.5430	1.5325–1.5425	1.5350	1.5385	–0.23%	Neutral
SEK/Euro	8.9995–9.0800	8.9500–9.1000	9.0575	9.0405	+0.19%	Neutral
CAD/USD	1.5245–1.5500	1.5225–1.5525	1.5375	1.5460	–0.55%	Neutral
USD/AUD	0.5205–0.5295	0.5225–0.5425	0.5250	0.5285	–0.67%	Neutral
MXN/USD	9.6330–9.7180	9.6250–9.8250	9.7010	9.6550	+0.47%	Cautious
BRL/USD	2.0230–2.0480	2.0175–2.0475	1.9930	2.0250	–1.61%	Neutral

Foreign exchange pairs given per U.S. convention. Percent change refers to numerator in respective currency pair; positive change means that the denominator, or base currency, has gained. Outlook refers to base currencies, with the exception of the Canadian dollar, Mexican peso and Brazilian Real; in those cases it refers to the two-week outlook for the CAD, MXN or BRL against the USD.

## Euro-Dollar-Yen Adjustment in Process

For our readers, the question in all of this is how the process influences currency exchange rates.

Though the response in currency markets has been somewhat hesitant, we are starting to see the effect in the main crosses. The stabilization of the euro is perhaps the most significant, though a substantial re-pricing in dollar-yen could overshadow developments in euro-dollar, with a strong arbitrage effect in euro-yen (already visible, we would note).

Despite the signs of trouble in the German economy, it still seems likely that Europe will outperform the U.S. in growth this year and perhaps in 2002 as well. Therefore we expect continued, if halting, progress by the euro.

Technical factors are favorable for the euro here, *Commerzbank* analyst *Joseph Klettner* tells *Market News International* (MNI). The next barrier on the path to parity is \$0.9405/20 (the upper edge of the 2 percent band around the 10-day moving average), then \$0.9446, the high of February 1<sup>st</sup>, while declines should be limited to the range of \$0.9242/\$0.9194. A sustained break through \$0.9446 could signal the euro is ready for a fresh up-trend.

We suspect the U.S. employment report, if highly negative, could provide the euro with a fresh incentive to forge ahead towards the \$0.96 level.

Dollar-yen stalled late last week at ¥119.30 just beneath the top of the 2 percent band around the 10-day moving average (at ¥119.44), Klettner reported. The 2 percent band will shift up to ¥119.81 this week, close to the January high of ¥119.90, making that a key resistance level.

Consolidation's likely to be limited to ¥117.54/18, Klettner tells MNI. Beyond ¥119.90 Klettner notes longer-term objectives around ¥124.45/75, advising that any move through that region turns the very long-term charts bullish (with short-term charts), with risk of gapping up to ¥140 or higher.

For the near term, particularly until the March 31<sup>st</sup> fiscal year-end, we would look for a modest decline in the yen with a breach of the key ¥120 area possibly paving the way for more losses toward the ¥125 target.

Readers are certainly advised to maintain stops on the way up to ¥125 and even beyond—though maintaining some relatively wide dollar-sell stops under the market in case a bout

of profit-taking sets in as is not unheard of in the currency game.

We'd quickly reposition on a return to ¥117.25 or so, anticipating bargain hunting at that level.

Gains in euro-yen could continue outsized relative to dollar-yen performance, but last week's 4.42 percent rally in euro-yen versus upside of 2.45 percent in dollar-yen may have set the stage for some arbitrage that will hinder euro-yen over the near term. Of course, relative progress in euro-yen depends upon the ability of euro-dollar to make the most of its current advantages to push through the next resistance levels—no sure thing given the euro's knack for disappointment.

## Still Cautious on the Mexican Peso

Readers know we are wary of the Mexican peso given the pressure on external accounts from the U.S. slowdown and stamina to date of the Mexican consumer.

J. P. Morgan Chase Mexico economist *Alfredo Thorne* shares those reservations. He reports that the peso's resilience has surprised most local market observers. Though the bank's current forecast has the peso falling to MXN10.30 by the end of March (then to MXN10.50 by June and MXN10.60 by year-end), the peso "shows no sign of moving away from MXN9.70" despite factors including the Turkish devaluation.

Some analysts have revised their views, Thorne notes, and some local traders have been so rash as to declare that the peso has "defeated the fundamentals." However, he cautions that it may not be a good idea to assume that Mexico has acquired a Teflon peso, so to speak. Current strength in the currency is related to private capital flows and firm oil prices. "But as long as domestic demand keeps growing faster than external demand and the U.S. economy keeps slowing, the potential for pressure on the peso will remain."

Thorne concludes, "...as in most previous episodes, some unforeseen shock eventually could lead to depreciation." Therefore, minimize Mexican peso exposures. □

*Foreign exchange analysis and recommendations by Brendan Murphy, Curragh Publishing, New York. Market News International, New York, and Thomson Financial-IFR, Boston have provided information and data for this report.*

Despite the signs of trouble in the German economy, it still seems likely that Europe will outperform the U.S. in growth this year and perhaps in 2002 as well.

"As long as domestic demand keeps growing faster than external demand and the U.S. economy keeps slowing, the potential for pressure on the (Mexican) peso will remain."

# Risk Management

## Keys, from Page 1

to be created can be broken down into combinations of these instruments.

The spot contract is a contract to buy or sell some commodity for a cash payment in a particular currency, or to exchange one currency for another. Settlement takes place in two business days from the date of dealing in the case of foreign exchange spot contracts. This is not a derivative contract, but derivatives are derived from this key financial instrument.

Beyond the spot contract, there are two key types of financial instrument that apply to practically all risk types: forwards and options. These contracts may be executed over-the-counter (OTC), which means between a corporate and a bank or bank to bank, or exchange-traded. Exchange-traded forward contracts are known as “futures contracts.”

The final of the four key financial instruments is the deposit contract. Obviously a loan contract is the same as a deposit, since one party's loan is another party's deposit. With this contract one can perform time shifts, moving cash flows from the beginning of the contract to the end, or smoothing out cash flows from a series of contracts to produce an average flat rate for a package.

If it is not clear what an option “straddle” is or you confuse it with a “strangle,” don't feel intimidated. They are both combinations of easily explained options and you really do not need to know what they are. You need to know WIGO, i.e., “What is going on.”

If a product can't be explained by its proponent, don't permit its use until such an explanation is forthcoming. If someone wants to sell you a “deferred LIBOR setting swap,” and you don't know why you should buy it, then don't. The salesman will have a very good reason—his needs for a new Ferrari are probably greater than your needs!

### Forwards

*“It is a mistake to look too far ahead. Only one link of the chain of destiny can be handled at a time.”—Winston Churchill*

A forward contract is a firm commitment to buy or sell something as of a specified future date. The contract could be for foreign currency, gold, sugar or oil.

A variant on a forward contract is a *forward contract for differences* (FCFD). This is a forward contract, but it is settled in cash based on price movements.

**Forward exchange contracts:** The most common such contract is a forward foreign exchange

contract, which is a contract to buy a specified amount of currency “A” in exchange for a specified amount of currency “B.” The standard, and therefore liquid, maturity dates for such contracts are one week, one month, two months, three months, six months and twelve months beyond the spot date. Intermediate months and longer dated contracts are also traded in the more liquid currency pairs.

Settlement can also be made before the spot date, for “value tomorrow” or even “value today,” using short date swaps.

To distinguish these contracts from forward swap contracts, these are known as *forward exchange outright contracts*.

**Forward rate agreements (FRA):** A FRA is used by corporate treasurers to protect against future short-term interest rate costs or to preserve investment returns.

By entering into a FRA, the parties lock in an interest rate for a stated period of time, starting on a future settlement date and based on a specified notional principal amount.

The buyer of the FRA enters into the contract to protect itself from a future increase in interest rates. This would be the case when a company believes that interest rates may rise and wants to fix its borrowing cost today.

The seller of the FRA wants to protect itself from future declines in interest rates. Investors who want to hedge the return obtained on a future deposit use this strategy.

FRAs are cash settled by way of a formula and lock in the market component only for the borrowing or investment vs. the London Interbank Offered Rate for the relevant currency (LIBOR) of the Euro Interbank Offered Rate (EURIBOR). The settlement represents the difference between the FRA contract rate and the EURIBOR/LIBOR settlement rate for the FRA interest period, prorated by the number of days in the FRA interest period over the year basis for the currency of the notional principal, i.e., 360 or 365 days.

Then, since LIBOR/EURIBOR is quoted on the basis of interest paid in arrears on the maturity date, the settlement factor is discounted to the “start date,” the beginning of the interest period. Finally, the settlement factor is multiplied by the notional principal amount in the currency of the contracts.

EURIBOR and LIBOR in most currencies are on a 360-day basis, while in Sterling it is on a 365-day basis. If you are not sure of the basis on an

Forwards and options may be over-the-counter (OTC), which means between a corporate and a bank or bank to bank, or exchange traded. Exchange-traded forward contracts are known as “futures contracts.”

By entering into a FRA, the parties lock in an interest rate for a stated period of time, starting on a future settlement date and based on a specified notional principal amount.



illiquid currency, then confirm it before dealing, since it affects the price.

There is no related facility to borrow or lend funds, and the FRA does not guarantee a future level of borrowing or deposit. The margin over LIBOR that a particular entity must pay in the market can vary considerably over time. Furthermore, the LIBOR defined under the FRA contract may not be on the same basis as the LIBOR defined in the borrower's loan agreements. For these reasons, FRAs provide a good but inexact hedge with respect to future borrowing costs.

Borrowers wishing to use FRAs to hedge their risks should ensure that all their LIBOR-linked funding agreements use the derivatives market standard for LIBOR in their loan agreements—the **British Bankers Association** interest settlement rate.

**Forward-forward loans and deposits:** The predecessor of the FRA was known as the forward-forward loan and deposit (FFLD) contract, and was developed in the 1970s. It was derived from a combination of, say, a six-month borrowing and a three-month deposit.

Unlike a FRA, the FFLD was not cash settled. It created an actual borrowing or a real deposit. Thus, the bank was obliged to lend funds to a customer on the maturity of the FFLD, and the price quoted for the FFLD included the lending margin for the particular customer.

**Forward swaps:** The term “forward” is also used, somewhat confusingly, to denote forward swaps. These are not forward contracts, but foreign exchange contracts that alter the maturity date of another contract. They are also known as foreign exchange swaps, distinguishing them from forward outright contracts.

A forward outright is the classic forward contract entered into by a corporation to exchange currencies at an agreed rate in the future. A forward swap is an instrument that is principally used by banks and treasuries of large corporations.

The interbank market for foreign exchange consists mainly of spot dealing. When a customer requires a forward outright contract, the bank enters into the spot market, as there is no forward outright interbank market.

This would be the procedure if, for example, the customer wants to buy sterling and sell dollars in one year's time.

The bank would buy the contract amount of sterling spot vs. dollars. That leaves the bank with a time shift exposure. To eliminate this, the bank

will enter into a forward swap which is a package of two legs: the bank will sell sterling spot vs. dollars and simultaneously buy sterling vs. dollars forward for value one year hence. This reverses the spot contract and moves the sterling/dollar position forward to match the customer's forward outright contract requirement.

**Forward-forward swap:** A variant on a forward swap is a forward-forward swap. This is distinct from the forward-forward loan or deposit contract described above.

The forward swap moves a foreign exchange position from spot to a date in the future. The forward-forward swap moves the position from one date in the future to another date in the future.

## Futures

As previously stated, “futures” are forward contracts traded on an exchange. The contracts dealt by the rogue trader Nick Leeson, the author of the **Barings** disaster, were futures contracts based on the Tokyo stock market.

When an investor buys a government bond or a share, he pays cash for it up front. However, to a greater or lesser extent, all derivatives provide leverage. Under an OTC forward contract, the treasurer has to satisfy the company's bank of its creditworthiness to enter the transaction.

Under an exchange-traded futures contract, the investor has to place margin, which may be “initial” or “variation.”

Initial margin represents the exchange's view of what an investor could lose in a bad day. It is like a deposit against possible next day losses. Recall that the Singapore futures exchange, **SIMEX**, doubled initial margin following Barings' difficulties.

Variation margin reflects the actual movement in the market and has to be settled immediately. Therefore, unlike a forward contract, a futures contract has no built up value at any time. The investor gains and loses on a day-by-day basis as contracts are effectively “marked to market.”

This makes futures the most transparent of derivative contracts. Funds have to be authorized and raised daily to cover losses. Losses cannot be carried forward on a year by year basis, as happened at **Showa Shell** of Japan.

## Options

*“The price of an article is charged according to difference in location, time or risk to which one is exposed in carrying it from one place to another,*

**The forward swap moves a foreign exchange position from spot to a date in the future. The forward-forward swap moves the position from one date in the future to another date in the future.**

**To a greater or lesser extent, all derivatives provide leverage. Under an OTC forward contract, the treasurer has to satisfy the company's bank of its creditworthiness to enter the transaction.**

**See Keys, Page 12**

## Payments, from Page 1

mated ClearingHouse (ACH) backbones.

ACH moves money very efficiently, which is the main reason that so many banks persist in using it. However, only a very small amount of data can accompany each transaction. It can be very difficult for B2B customers to track exactly who is paying them, or what they are being paid for. When only part of the purchase value is being transferred—which is often the case in the B2B arena—the problem becomes even more complex.

Companies need to demand better payment solutions. Entering a credit card number on a supplier's Web site isn't any more efficient than reading it over the phone. It's inherently more susceptible to fraud and, above a small B2B purchase of \$2000, the eco-

on-line exchanges that are the driving force behind the e-commerce initiatives of many companies. Forcing members off-line to complete their transactions via fax or phone weakens an exchange. Not only are the cost and efficiency benefits to members reduced, but the exchange is cutting itself out of one of the most important steps of the process and often losing touch with its own ability to earn revenues from the transaction.

What then, is the gold standard for completing the B2B transaction loop on-line?

Truly, paying on-line shouldn't just be a method of transferring funds. The process should also add value to your business, by enabling you to save money and time as well as improving the quantity and quality of information that is readily available regarding the company's payment and cash flow.

With a true end-to-end on-line payment network, e-commerce participants could create, digitally sign and send payments in a secure Internet environment. They would not have to interrupt the transaction and move off-line to write and mail a check. Also, there would be virtually no limit to the type or volume of electronic information you can remit with an invoice or payment.

One of the truly wonderful things about the Internet is that, when used properly, it can free a business of the many constraints imposed by poor information flow.

Currently, small businesses in particular are suffering the burdens of having key remittance information only available through laborious reconciliation of paper documents. Expediting payments reconciliation by al-

**Paying on-line shouldn't just be a method of transferring funds. The process should also add value to your business.**

nomics of credit cards as a payment vehicle completely break down for the merchant.

Even when the seller has the security of completing a face-to-face credit card transaction with the cardholder, merchant fees can run up to 3 percent of the purchase value. These fees can double or triple when the purchase is made on-line or over the phone, and charge-backs are incurred by an estimated 6 to 7 percent of all on-line purchases due to fraud or non-delivery of goods.

Also, lack of a true on-line payment mechanism could undermine the success of

### Foreign Exchange Market Options Data

Provided by *Bank of America*

	3/ 2/00	Year Ago	% Chg. \$ Value	Implied Volatility for At-the-Money Options						Implied Volatilities
				1 Week	1 Month	2 Month	3 Month	6 Month	1 Year	
EUR/USD	0.9366	0.9652	2.96%	13.0/14.0	13/0/13.3	13.0/13.3	13.0/13.3	13.0/13.3	13.0/13.3	Despite the jump in JPY vols overnight, USD/JPY vols are around their average for the last two years. We continue to see demand for OTM JPY puts, which has been the trend for the last couple of weeks. With euro back around the middle of its recent ranges, vols are not materially changed. For hedging long euro exposure vs. the dollar, assuming a spot reference of 0.9380, a 0.91 EUR put to the end of June can be financed by sale of a 0.97 EUR call at zero cost.
USD/JPY	118.90	107.53	10.57%	11.8/12.8	11.7/12.0	11.7/12.0	11.7/12.0	11.7/12.1	12.0/12.3	
GBP/USD	1.4731	1.5777	6.63%	10.0/11.0	9.8/10.2	9.9/10.2	9.9/10.2	9.9/10.2	10.0/10.3	
USD/CAD	1.5465	1.4538	6.38%	6.0/ 7.0	6.3/ 6.7	6.1/ 6.4	6.0/ 6.3	5.9/ 6.2	5.9/ 6.2	
AUD/USD	0.5287	0.6057	12.71%	13.3/14.3	13.0/13.4	13.0/13.3	12.9/13.2	12.7/13.0	12.4/12.8	
USD/CHF	1.6412	1.6634	-1.33%	11.6/12.6	12.0/12.3	12.1/12.4	12.2/12.5	12.4/12.7	12.5/12.8	
USD/MXN	9.6600	9.3120	3.74%		8.1/ 9.3	9.3/10.1	10.2/11.0	11.3/12.1	13.1/13.9	
USD/BRL	2.0400	1.7560	16.17%		8.5/ 9.8	8.9/10.0	9.0/10.0	9.5/10.5	11.0/12.0	
USD/HKD	7.7994	7.7824	0.22%		0.0/ 0.5	0.1/ 0.6	0.2/ 0.6	0.5/ 0.8	0.9/ 1.4	
EUR/JPY	111.41	103.77	-7.36%	18.8/19.8	16.0/16.4	15.6/16.0	15.5/15.8	15.2/15.5	15.1/15.4	
EUR/CHF	1.5378	1.6063	4.26%	3.3/ 4.3	4.1/ 4.4	4.1/ 4.4	4.1/ 4.4	4.2/ 4.4	4.1/ 4.5	
EUR/GBP	0.6357	0.6118	-3.91%	9.4/10.4	9.7/10.0	9.7/10.0	9.7/10.0	9.7/10.0	9.7/10.0	

lowing the digital transfer and translation of all that B2B remittance information would save the cost and bureaucratic entanglements of doing it manually.

As well as keeping set-up costs and disruptions to a minimum, any on-line payment structure should also work within the framework of your existing banking relationships and systems infrastructure. This, as the many banks trying to develop their own Internet payment systems have found, is one of the keys to widespread adoption.

Proprietary, bank-specific payment systems face an immediate obstacle: both seller and purchaser have to have relationships with the host bank.

Most businesses have established banking relationships that are built on service and trust. As a result, it is unlikely that a business will create a new account at a different bank simply to take advantage of a new way to pay. An optimal on-line payment system should therefore be bank-neutral, with the system's host service taking ownership of the bank relationship.

Another disadvantage of bank-specific payment systems is their associated cost.

This type of system involves a significant investment by a bank, and the investment becomes redundant as many banks duplicate the effort by developing proprietary systems. A single, "outsourced," cross-bank platform would be much cheaper to implement, and would be an attractive, economical service offering for banks trying to attract B2B customers.

Some large companies try to mimic the speed and information of on-line payments by using electronic data interchange (EDI). However, these EDI systems require not only significant start-up and testing costs, but are also based upon sharing of sensitive bank information. These barriers limit the number of companies that can participate, which in turn limits the payment solution's potential.

These kinds of problems are caused by e-commerce participants' ignorance of one of the fundamental strengths of the Internet. Any company with which your firm does business is technically able to use a payment solution simply and easily within its existing bank accounts, whether they are down the street or across the globe.

The increased information flow made possible by the Internet also allows for customized management tools that allow you to easily establish the user privileges that make sense for your company, both for signing payments and accessing reports.

Above all, conducting business on-line should be easier and less expensive than the way things have been done in the past.

Meeting this benchmark means leveraging the efficiency and information flow of the Internet to improve cash flow and reduce processing expense. Any finance or accounting executive dealing with the vagaries of "check float" can attach a value to a solution that provides status information on where payments are in the settlement process and the exact moment funds are available.

If you think that you've put yourself ahead of the curve simply by doing business on-line, think again. If your e-commerce sys-

**Bank-specific payment systems face an immediate obstacle: both seller and purchaser have to have relationships with the host bank.**

tem isn't integrated end-to-end, its convenience will always break down as soon as the customer is forced to perform part of the transaction off-line.

Digital payment procedures should support transmission of remittance information. Without this ability, the value of effecting speedier transactions will be lost in the confusion surrounding determination of which payment should be applied to which debt. Also, on-line payment must be economical to implement, or a return on the investment to undertake e-commerce could be a long time coming.

E-businesses and financial institutions wishing to realize the maximum potential of on-line transactions must embrace digital payment solutions that adequately address these issues, or continue to accept paper-based inefficiency. □

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# Risk Management

## Keys, from Page 9

*or in causing it to be carried. Neither purchase nor sale according to this principle is unjust.*”—St. Thomas Aquinas

An option gives the holder, on payment of an insurance premium, the right, but not the obligation, to buy or sell something in the future at a specified price and on a specified date, or between specified dates. Listed options take the form of warrants.

An option might allow the holder to buy one currency for another at an agreed exchange rate, the strike price. Options are also written on individual share prices or stock market indices such as the London *FTSE100*. An option to buy is a “call” option; an option to sell is a “put.”

**Currency options:** A currency option gives the holder, upon payment of a premium, the right, but not the obligation, to buy a specified amount of currency “A” and sell a specified amount of currency “B,” on a specified date or between specified dates.

A European option gives the holder the right to exercise his option on only one date, the exercise date. An American option gives the holder the right to exercise the option at any time from the deal date to the exercise date.

Exercise takes place two business days from the value date of the transaction, in the case of currency options.

Asian options are quite different, being average rate options. At the end of the contract period, the strike rate is compared with the average rate observed for the currency exchange. If the strike rate is favorable to the holder of the Asian option, the option is exercised by way of cash settlement. Note that the average used can be observed daily, weekly, monthly or simply the difference between the start and end date of the contract. These are useful for hedging currency exposure in cases in which management accounts are translated on an average rate for the accounting period.

Asian options are (misleadingly) cheaper than American or European options. They simply cost less because of the statistical fact that an average of a price series is more stable than any particular price series. Asian options are cash settled automatically.

Be careful about the basis for the averaging as the bank providing the average rate option may be in a position to manipulate the fixings in its favor. A “noisy” operation in the foreign exchange market just before a fixing by a major foreign exchange bank can have a marked impact on the exchange rate for the few minutes it takes for the fixing to be made.

Atlantic or Icelandic options are similar to American options, in that they can be exercised at any time between two dates. However, the first date is not the deal date of the option, but some agreed date in the future, obviously before the maturity date.

In the financial markets everything is negotiable and all derivatives can be tailored to meet customer needs and exercise terms can be agreed between the parties. As with all financial instruments it is vital to check details with your counterparty before dealing.

In the case of currencies, a “call” option can be confusing and care must be taken to avoid misunderstandings. It could represent the right to buy or sell either one of the currency pair. So, tell it like it is: ask for a sterling call, or a euro put, for example, if that is what you want.

If there is even the slightest doubt, specify the contract being discussed clearly. It is much easier to eliminate doubts before dealing than after exchanging contracts and positions are hedged in the market. Short cuts may sound highly professional but could lead to embarrassment.

**Option dated forward contracts:** These contracts were available long before currency options. In fact, they were known as “currency options.”

An option dated forward contract is a forward exchange contract in which the customer has the right to choose when to exchange currencies between two specified dates. This allows for delays in shipment or payment of underlying trade transactions. These are purely bank to customer contracts and generally are not available in the inter-bank market.

The choice of date feature in option dated forwards is an interesting parallel with American currency options. Pricing is based on the worst rate for the option period.

The concluding installment of this article will deal with interest rate-related options and various categories of swaps. □

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*Warren Edwardes is chief executive of London-based financial products innovation and risk management consulting firm, **Delphi Risk Management Limited**. This article is based on a chapter in the book *Key Financial Instruments: Understanding and Innovating in the World of Derivatives*, published by “Financial Times”/Prentice Hall, ©2000 Pearson Education and *Delphi Risk Management* and reprinted with permission. He can be contacted by readers seeking further information about derivatives and risk management, either via the company’s Website at [www.dc3.co.uk](http://www.dc3.co.uk) or by e-mail at [we@dc3.co.uk](mailto:we@dc3.co.uk) directly.*

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A “call” option can be confusing and care must be taken to avoid misunderstandings; it could represent the right to buy or sell either one of the currency pair.

## Energy, from Page 2

ancing reserve acquisitions are gaining favor. In a recent transaction, the acquirer, a large international exploration and production (E&P) company, was able to leverage its acquisition budget and obtain off-balance-sheet financing by forming an acquisition entity with a third-party investor to acquire the targeted reserves.

Affiliates of the E&P company manage the acquisition entity, operate the acquired properties and arrange for the marketing of production. The E&P company and the third-party investor contributed equity to the acquisition entity that was structured so that neither of the parties controlled it for accounting purposes.

In addition to the equity contributed to the acquisition entity, it also obtained senior debt financing from an international group of banks. Certain support agreements entered into by the owners of the acquisition entity in favor of the banks enhanced the creditworthiness of the borrower without constituting a guarantee of the senior debt.

As a result of the leverage provided by the equity contributions of the third party and the senior bank debt, the E&P company was able to acquire approximately five times as many reserves through this structure as it would otherwise have been able to if the acquisitions had been made on balance sheet.

Recently, energy companies have tapped both the public and private markets to sell securities payable out of the revenue streams generated by several, rather than one, power projects. Early examples of this approach include *Coso Funding Corporation*, in late 1992, *Energy Investors Fund Funding Corporation* in 1994 and *Panda Funding Corporation* in 1996. This trend of “securitizing” revenues generated by the operation of pooled projects continues to grow.

Today, it is accepted that revenues generated by the operation of power projects that have historically supported senior bank or private institutional financing are often suitable for securitization. Less common is securitization of equity level cash flows—cash flows available to equity investors in a project after the project company’s debt obligations have been serviced and its other expenses paid.

For this form of financing, the source of repayment of the securitization debt is dividends and distributions received by owners of the equity of the project companies that directly

own power projects, rather than the revenues received by the project companies themselves from the operation of their plants.

Using the example of independent power plants, this article describes the processes involved in implementing this emerging financing technique. After outlining these mechanics, benefits of equity cash flow securitization will be discussed. Finally, we will look at some particular issues that arise in the context of power plant equity cash flow securitization.

### The Securitization Process

A sponsor of a number of power plant projects may securitize its plants’ equity cash flows by pooling those cash streams to produce a common, but diversified, income stream, against which potential investors are prepared to commit funds.

“Packaging” of cash flows is generally achieved by taking ownership of the project companies away from the sponsor (or its affiliates) and placing it in a SPV set up (often in a tax-efficient jurisdiction) for this purpose. The SPV may be wholly-owned by the sponsor. The sponsor may, however, at the same time it monetizes the expected equity income from its project companies, dispose of some of its ownership interest in the SPV, thereby simultaneously raising additional equity finance and arranging for securitization debt to be raised off-balance-sheet.

Commonly, ownership of project companies will be transferred by the sponsor, in the form of a sale to the SPV for cash. The SPV will simultaneously sell securitization debt to investors. Sale proceeds of this debt will be used in turn by the SPV to pay for purchasing equity in the project companies from the sponsor.

The sale of the project companies to a SPV is necessary to ensure that the ability of the SPV to meet its obligations under the securitization debt is not related to the general economic well-being of the sponsor. Segregation allows potential investors to concentrate on the capability of a definite portfolio of equity cash flows from specific project companies to repay the debt, rather than looking at credit risks of the many companies and projects which make up the sponsor as a whole.

The securitization debt, which will often be sold in international capital markets, may take several forms. The need to find purchas-

In a recent transaction, the acquirer was able to leverage its acquisition budget and obtain off-balance-sheet financing by forming an acquisition entity with a third-party investor.

A sponsor of a number of power plant projects may securitize its plants’ equity cash flows by pooling those cash streams to produce a common, but diversified, income stream.

See *Energy*, Page 14

## Energy, from Page 13

ers for the debt requires the sponsor and its advisers to create an instrument that will be marketable, both for initial purchasers and any future investor looking to buy the debt on any secondary market that develops.

In practice, this marketability requirement will generally require the structural features described in the following sections.

First, the sponsor will have to retain an investment bank to act as a placement agent or underwriter of the debt. The bank's involvement and input will be essential to create a structure that results in an acceptable risk profile of the securities to be offered.

Because debt payable out of the dividends or distributions received by a shareholder of a project company (the SPV) is junior to creditors of the project company, the debt of the SPV may involve substantial risks of default. Accordingly, an independent evaluation of risks and merits of an investment in the debt is helpful to prospective investors. Therefore, the sponsor and its advisers will work with the rating agencies to obtain an appropriate rating on the debt.

In order to maximize liquidity, it is likely the debt will have to be eligible for trading on one or more financial exchanges. Therefore, the offering memorandum circulated to potential investors will have to be written in accordance with the exchanges' rules and regulations, as well as the securities and financial services laws of the countries in which the debt will be sold.

### Benefits of Equity Cash Flow Securitization

A common reason for securitizing equity cash flows from energy projects is to refinance more costly, shorter term bank financing by tapping cheaper capital market sources. Depending on how a deal is structured, one additional benefit could be that, by using a partially owned SPV, this type of financing may be done off-balance sheet.

The equity cash flow securitization process also offers important prospective benefits to project sponsors.

Monetization of the sponsor's equity interests in its power projects will allow the sponsor to use capital realized from its existing portfolio of power plants to invest in other projects. The sponsor's only other cost-effective method of realizing the value of its equity in a project may be by a conventional sale to a third party.

This may not be consistent with the sponsor's business plan (e.g., to retain a current or residual equity interest in the projects) or even permissible under the project documents.

Monetization of its equity in power projects enables a sponsor to reduce its exposure to risks associated with its equity position. By securitizing part of the equity cash flows, the sponsor can transfer that risk to debt investors who can incorporate that risk profile in their portfolio.

### Relevant Issues: A Sponsor's Perspective

**Credit enhancement:** The securitization market developed in industries in which there is a large number of homogeneous transactions. In this environment, it is possible to estimate with a reasonable degree of certainty the level of counter-party default.

Power plant projects, however, are subject to a number of risks and uncertainties, and there may be no historical experience upon which one could base a reliable estimate on whether these risks or uncertainties will be realized. Additionally, any potential project sponsor may only have a small number of power plants that it can use to package in to a common income stream.

For these reasons, some form of credit enhancement may have to be put in place to reduce the impact of potential losses, particularly with respect to risks with which the capital markets remain uncomfortable. These might include sponsor guarantees or third-party credit or insurance facilities.

The need and amount of credit enhancement will vary depending on the quality of assets which are offered, the rating desired and the current level of demand in the capital markets for the debt being issued.

**Consents:** Sponsors should be aware of extensive disclosure requirements that will have to be made if the securitization debt is to be sold to institutional private placement or public markets.

Most power plant project contracts will contain confidentiality provisions, which more or less circumscribe what each party may make public. All relevant confidentiality clauses must be reviewed and any necessary consents to disclosures sought at an early stage. With the ever-increasing trend toward refinancing by way of securitization, power project sponsors and their advisers should attempt to ar-

Because debt payable out of the dividends or distributions received by a shareholder of a project company (the SPV) is junior to creditors of the project company, the debt of the SPV may involve substantial risks of default.

Sponsors should be aware of extensive disclosure requirements that will have to be made; most power plant project contracts will contain confidentiality provisions.

range for a "carve-out" in the original project contracts for this type of exercise.

Continuing control requirements may also be an issue. Senior project lenders or co-sponsors may need to consent to the transfer of the sponsors' equity interest in the project companies to the SPV structure. These consents may not be easy to obtain, particularly if the sponsor will not own a controlling interest in the SPV.

Structures that avoid some of these issues, including the creation of equity-like cash streams linked to project performance, have been discussed but not brought to market to date.

**Bankruptcy:** The securitization process traditionally requires a sale of a portfolio of power plants by the sponsor to a SPV. Investors in the securitization debt will need to be assured that, in the event of sponsor's bankruptcy, this sale cannot be set aside for any reason, including as a transaction at an undervalue or fraudulent transfer. The laws of the relevant jurisdictions will need to be examined.

**Due Diligence:** The issuer will be legally required to provide potential investors with accurate and detailed information about the power projects from which the equity cash flows to be securitized will be generated. This will be the case for both the securities and financial services laws of the countries in which the securities are marketed and the regulations of the exchanges on which the securitization debt is traded.

The information will normally be given in an offering memorandum drafted by the sponsor and its advisers. In preparing the offering

memorandum, a due diligence exercise must be conducted to identify any risks of which an investor should be aware. These include issues such as project economics, change of law and local law issues, environment pollution, insurance, litigation, labor disputes and a host of other factors that might adversely affect the plants' income streams.

## Conclusion

Some commentators have heralded the end of traditional lending techniques in favor of securitization. Those commentators have argued that the role of banks as lenders will be replaced by numerous small investors buying financial instruments in the public markets (with banks acting in the role of arrangers and underwriters).

While this may be overstating the case, securitization is a development that should be noted and followed by all those involved in energy financing. More particularly, securitization of equity cash flows is a promising financing technique available to sponsors of multiple projects that would like to free up capital and shed risk without selling all of their interests in the projects they have developed. □

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**Senior project lenders or co-sponsors may need to consent to the transfer of the sponsors' equity interest in the project companies to the SPV structure, which may not be easy to obtain, particularly if the sponsor will not own a controlling interest in the SPV.**

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March 15, 1998  
Volume 18, Number 3

### Post-EMU Cash and Debt Management

**IN THIS ISSUE**

BANK OF ILLUSTRO

**Cash Management**  
The introduction of the euro will simplify cash flow management for companies operating across Europe and will allow them to manage their pan-European cash flow in one currency. They will also have the ability to hold all accounts in euros with uniform interest rates, which will make cash flow forecasting easier.  
The euro will also allow treasurers to pool cash held in different member states. Corporations will be able to take advantage of the single currency by holding euros on credit to each of the member states in which they operate. All euro balances held overnight in the accounts of their pan-European bank could be set off against each other, reducing working capital borrowing requirements. The treasury would then only have to manage one working capital balance.  
*continued on page 2*

### Europe Positioning for Boom in Asset-Backed Securities

W.B. SCHATZMAN (BRUSSELS)

Following the boom in the asset-backed securitization market (ABS) in the United States in 1997, underwriters are poised to spread their wings in Europe. Unlike in Asia or Latin America, the one-time small paced market in Europe is continually evolving into a viable sector and issuances in the ABS market will likely jump this year due to recent favorable regulatory changes, as well as the approaching launch of the euro. See related ABS item page 10 of this issue.  
The most significant regulatory change that Europe has seen occurred last May, when German banks were given authorization to securitize their own loans. Regulations have also been improving in France and as a result a surge in asset class activity may make a large impact on the already changing ABS volume in Europe.  
ABS activity so far has been centered mainly on residential mortgages and, to a lesser extent, credit cards. Unlike in the U.S., there is no distinction between mortgage-backed and asset-backed securities in Europe—all deals use an ABS structure.  
*continued on page 12*

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## Russian Exchange Controls: Easier In, No Easier Out

The Moscow office of **Arthur Andersen** reports that on December 27<sup>th</sup>, 2000, the Russian central bank (CBRF) issued *Regulation #129-P*, representing an important liberalization of licensing for inbound transfers of hard currency. There are no such corresponding benefits for outbound transfers. The new procedures became effective on March 1<sup>st</sup>.

The new regulation shifts more licensing authority for what had been a highly centralized procedure from Moscow to regional CBRF branches. Under the new rules, the local branch can issue licenses for most categories of transactions up to \$100 million.

*Regulation #129-P* also codifies reasons for rejection of a license application, the most significant of which are provision of inadequate information or *ex post facto* application regarding an executed transaction, or one for which an obligation has already arisen. Andersen comments that the latter provision could lead to some ridiculous complications, since applications for funds transfer would have to be made before any contracts or legal documentation detailing the obligation had been drawn.

The local CBRF branch will have 20 business days to consider the license application for funds transfer. If the application for a license is refused, the local branch has to notify the applicant in writing regarding reasons for the turndown. If these are subsequently remedied, the applicant is free to reapply.

The new regulation also reinstates the provisions of CBRF's existing *Resolution #527*, restricting any but the shortest-term hard currency borrowing by Russian firms from non-residents. These regulations also place restrictions on the use of borrowed funds. They may not be used for real estate purchases, settlement of third-party liabilities, or to repay earlier borrowings from non-residents.

## Joint Venture Formed for On-Line Trading of Asian Distressed Debt

**Automated Trading Systems, Inc. (ATS)** and **ADM Capital Management (ADM)** of Hong Kong have agreed in principle to create an e-commerce portal for issuance and trading of illiquid debt products. The joint venture will focus on pan-Asian debt, excepting Japan, arising from corporate restructuring, private placements, debt buy-back and corporate new issues as well as certain government-backed issues. Asian debt specialists in Europe and the U.S. will have access to the portal in addition to regional institutions.

"We selected the ATS platform because it is the most widely used system in the U.S. high yield markets," said **Christopher Botsford**, managing director at ADM. "By making Asian debt products available on-line, we will be reaching a much wider audience of potential investors than is currently the case. As a result, we expect to attract higher recovery prices and overall increases in liquidity within the asset class. At the same time, the broader exposure will help the restructured companies attract new capital."

**Donald E. Weeden**, the chief executive of ATS, explained why he believes the ATS platform is perfect

for the Asian distressed debt market.

"The ATS platform is capable of centralizing a market in virtually any class of registered securities or financial instruments by facilitating anonymous negotiation and trading on a price, spread or yield basis," said Mr. Weeden. "The large Asian distressed debt market represents a major opportunity for us as well as for those specializing in debt restructuring and distribution."

The ATS software will also enable on-line new issue and secondary trading in debt instruments, on a global basis, of Asian regional companies and government agencies.

The International  
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March 5, 2001  
Vol. 27, No. 10

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