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Financial Derivatives in Australia's International Accounts

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FINANCIAL DERIVATIVES IN AUSTRALIA'S INTERNATIONAL ACCOUNTS

INTRODUCTION

1. The progressive deregulation of the Australian financial system since 1983-84 has seen a substantial increase in the use of financial derivatives by Australian enterprises. The increasing interest in, and use of, these financial instruments has resulted from enterprises wishing to take account of the impacts of financial deregulation in their financial planning - with reactions varying from those wishing to hedge against the increased volatility in the financial markets to those prepared to take extra risk associated with that volatility. Some enterprises seek to change their risk profiles by using derivatives to change the structure of their financial portfolios; others avoid risk and seek only to accommodate the risk management needs of clients by intermediating to transfer the risks in the market place or to trade the risks across markets. Some enterprises have engaged in all of these forms of financial derivative market activity.

2. However, in setting a course for statistical development to address the measurement of financial derivatives, the relative importance placed on aspects of the financial sector should be considered. In Australian dollar terms, currently Australia's gross foreign assets and liabilities are, respectively, about $240 billion and $560 billion (all figures are in Australian dollars; at present these are equivalent to about $140b and $330b US). Cross-border financial derivative assets and liabilities are only about $10 billion and $15 billion, that is, less than 5% of the gross positions and they account for only about 1% of the net international investment position. By comparison, other portfolio debt securities assets and liabilities contribute $200 billion to Australia's net IIP. And the turnover in the physical markets is also very high. For example, for general government bonds domiciled in Australia, the stock of debt outstanding at 30 June 1996 was about $30 billion, but the turnover with non-residents during the year was in excess of $200 billion (although recent taxation changes are expected to result in lower turnover in future).

3. This paper explores briefly the experiences of the Australian Bureau of Statistics (ABS) in collecting and compiling statistics on Australia's cross-border financial derivatives, and looks at the lessons that might be there for other collection agencies.

ABS SURVEY OF INTERNATIONAL INVESTMENT (SII)

Background

4. The increasing scale of, and volatility in, international financial transactions undertaken by Australian residents over the past 15 years, and the volatile market conditions in which these transactions were set, initially posed significant data collection and measurement difficulties for the ABS. The size and volatility of the quarterly BOP balancing item in the early 1990s was initially thought, in part, to reflect the net impact of financial derivative activity, though that has largely been discounted as the size of the activity was scoped, and other data collection issues investigated.

5. In recognition of both the potential importance of capturing financial derivatives activity in measuring Australia's international financial transactions, and of the BPM5 standards, the ABS commenced collecting, from the September quarter 1993, separate data on financial derivatives within the SII.

6. The initial data collection was detailed, requiring a full reconciliation statement by product, and collected a mix of both net market values of instrument positions and the gross valuations of cash flow streams,

7. Initially the data providers to the survey had mixed success in being able to meet the information requirements of the collection. The then commercial requirements of hedge accounting, and the underdeveloped requirements for disclosure of financial instruments often did not support the separate reporting, at market values, of the underlying financial assets and liabilities and of the associated derivative hedges. Therefore some data providers could only report on a net basis across both standard and derivative instruments.

8. Another significant data problem related to the measurement of transactions undertaken by financial institutions. Many institutions can and did mark to market the outstanding derivative positions that they undertook, and did identify those positions held with non-residents, but could not readily report the value of transactions undertaken with non-residents. The management of trading books captured indistinguishably the net profit or loss across a range of related risk products traded with residents and non-residents alike.

9. The upshot of the range of data quality concerns surrounding the initial collection efforts was that the data collected for 1993-94 could not be used.

Progress in improving the data

10. As business management information requirements have increased in the field of derivatives, and as regulators have increased their focus, the available information reported to the ABS has improved. The requirements of a proposed new accounting standard for financial instruments, issued in mid 1995, lead to much industry debate and consolidation of views on the nature of the information needed to manage risk and report to the market. Its circulation saw IIS reporting progressively improve the information available to the ABS.

11. Data, subsequently published, were initially compiled for 1994-95 and 1995-96, and are considered of sufficient quality to provide a broad measure both of Australia's cross border derivatives position at that time, and of the net transactions in those instruments. These estimates were externally validated by reference to a number of sources. First, the target population for the 1995 BIS Central Bank Survey of Foreign Exchange and Derivatives Market Activity was compared with the units reporting in SII to ensure that significant financial sector players were not omitted from the later. Second, results from the survey available to the Reserve Bank of Australia (RBA) were compared with financial sector reporting in the IIS. The details included product type and market valuations for positions with cross-border counterparties. Allowing for deficiencies in both collections, the data were considered to be broadly comparable.

12. Copies of BIS data returns, and other RBA foreign exchange and derivative collection returns, were also sought, on a voluntary basis from financial institutions having difficulty reporting on the ABS form. This approach was used to either validate ABS responses, or to correct reporting problems.

13. While over 100 data providers report financial derivatives data in IIS, Australia's cross border derivatives position is dominated by about 12 banks; a handful of public sector and a few more private sector non-bank deposit taking institutions; a small number of other financial institutions in each of the public and private sectors; the Commonwealth Government and the RBA; and less than 10 significant corporate trading enterprises.

14. The subsequent final issue of Australia Accounting Standards Board AASB 1033, in December 1996, further pushed along the improvement in data quality among the significant players in the market place. The standard (which is broadly consistent with IAS 32) is operative for financial years ending on or after 31 December 1997, which means that its full effect is progressively being felt in SII data quality improvements during 1998.

15. AASB 1033 requires, among other things, the disclosure of the net fair value of all financial instruments, by class of recognised and unrecognised financial asset and liability. It applies this standard to a very broad definition of financial instruments, including commodity contracts normally settled other than via physical delivery. It also requires disclosure of the valuation method, and promotes the use of quoted market prices in actively traded liquid markets (where the great bulk of Australia's derivatives exposure resides). There are some allowances for right of set-off, but generally it requires the separate identification of asset and liability positions.

16. In addition to commercial accounting requirements, the RBA has for some time required banks to report derivatives stocks information on an exposure basis. While this doesn't identify non-residents per se, it does identify counterparty risk categories which can be used to roughly map for some non-resident positions (eg, positions with foreign central banks) but not others. The RBA's reporting requirements allowed exposure to be measured on a "rule of thumb" basis for those institutions holding only hedging or full matched positions that were not generally significant or were not for the purposes of trading. Large positions, and any positions in traded instruments had to be reported on a market value basis.

Remaining quality issues

17. However, a number of difficulties remain in the collection of these derivatives data. None is considered critical for the quality of Australia's balance of payments or IIP data overall, but they do affect the degree of confidence that can be placed on separate derivatives series. Until the internal reporting of derivatives information within financial institutions catches up fully with the disclosure requirements of the new standards, these difficulties need to be understood in interpreting the data. Even after the full implementation of AASB 1033, some measurement difficulties will remain.

18. First, the new Australian accounting standard relates to disclosure. It is quite possible for institutions to account for derivatives in one way, but to fully disclose the derivative exposure in notes to the accounts. This presents practical collection difficulties where the information for all IIP purposes is sought from the one accounting contact within an enterprise group. The data may only be prepared for disclosure statements to the stock exchange, the Australian Securities and Investments Commission or in annual reports, without the ongoing availability of the detail that is required for SII reporting.

19. Second, some providers cannot readily distinguish transactions between residents and non-residents. While they have a number of processes to map their positions information to provide quite detailed data on assets and liabilities by

counterparty, the booking of settlements (ie transactions) in those contracts does not readily identify the residency of the counterparties to the settlements, nor readily link the settlements to positions which may be mapped in other systems to identify non-residents separately from residents. The costs of mapping positions records back to settlements information is beyond some of the smaller data providers, and settlements information is estimated from a combination of the stocks and market price data that their systems can provide. This is not considered a significant issue for the published aggregate statistics, but is significant at the provider level and perhaps in more detailed cross-classifications of the data which are yet to be published.

20. Another problem relates to the separate identification of settlements in assets and liabilities. That is, even when institutions' systems can use counterparty flags to sweep up all settlements with non-residents, they cannot identify either side of a matched settlement pair under one contract. For example, there may be thousands of settlements out to one counterparty, and thousands inward in the same accounting period. Yet the provider cannot pair the flows to get net settlements on assets versus net settlements on liabilities. Even if a further flag could be set to identify the pairs, for most of the instruments (swaps) which can swing from asset to liability it is not possible to say whether the particular instruments was an asset or liability when the settlement was made ie, the asset/liability flags are only assigned at balance date and not at transaction date. This problem is fairly common, and is dealt with through a rule of thumb which allocates net settlements outward to liabilities and net settlements inward to assets. Any error in the attribution affects the interpretation of the reconciliation of international investment positions for assets and liabilities, but does impair either the stocks or net flows involved.

LESSONS

21. It is worth persevering with:

a. a brief statement of the longer term direction, so that statisticians and reporting institutions can anticipate what data requests might be required in the future;

b. approach only to the key providers initially, and get their reporting sorted out before widening the coverage of the collections. This has a significant staff cost. Direct contact of institutions by the Balance of Payments/International Investment position compilers is important here, so that they can appreciate and advise on the statistical significance of reporting compromises;

c. a key set of exposure statistics initially (not transactions initially) so that the extent and context can be appreciated;

d. exposure captured by enough detail to validate the reporting or identify the problem areas for future investigation, but not necessarily a longer term (or historical) output data set; and

e. ongoing monitoring and harnessing of industry standards and related data collections.

22. Common sense is needed to identify the big players. Smaller players running into trouble with big exposures won't report the data anyway. The ABS cast its net fairly wide initially, and then took a long while to sort the chaff from the wheat. In the process it also consumed a fair amount of smaller provider goodwill in trying to wrestle with ABS data requirements that were evolving in both the international accounting standards and the international statistical standards. Materiality is essential in new endeavours of this sort.

23. By focussing on stocks initially, broad reporting difficulties can be resolved in the context of standard industry and regulatory reporting before the more elaborate BOP requirements enter the reporting matrix. This also allows a better focus by the statisticians on the bigger players that can then be used to harness their industry knowledge in expanding the collection.

24. From September quarter 1996 the SII form was modified to exclude much of the product detail previously sought, but expanded to enable the measurement of derivatives according to the letter of the statistical standards that were developed for national and international accounting. The detail required was still a significant burden, and hindered developing the quality of the reporting at aggregate level by many providers. The form has since been modified to remove some of the detail that is no longer required by the standards, but needs a little more streamlining still. A copy of the current SII questionnaire pages is attached for information.

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