



November 24, 2003

Argentina's External Debt

Assessing the government's restructuring proposal

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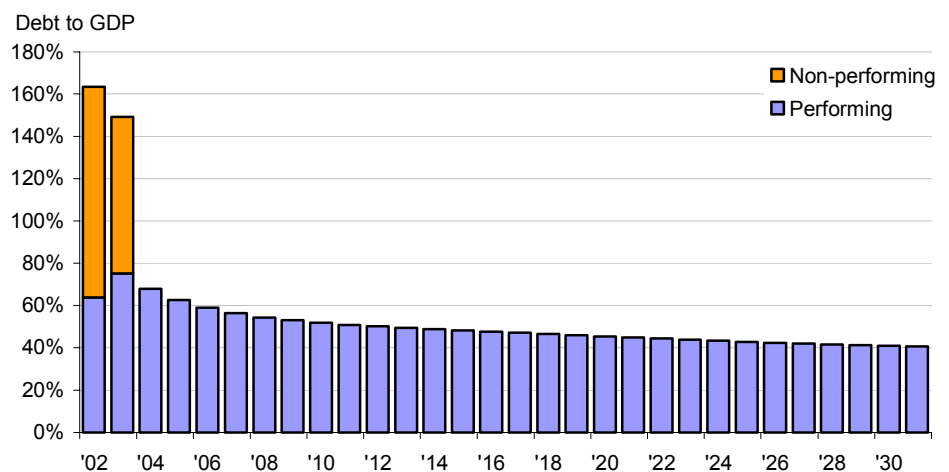
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- We believe that the government's recent proposal for restructuring its external debt is consistent with a fair value of the debt between \$9 and \$14. We arrive at this result using an exit yield of 12%, consistent with the results of our Fundamentals to Spreads (F2S) model.
- Market prices (currently \$25-\$28) are, therefore, expected to fall over the medium term, while the government's offer would need to improve to make a deal palatable to creditors.
- Based on that view, we continue holding zero exposure of Argentina's debt in our model portfolio.
- We believe that a successful restructuring is unlikely if the government does not achieve a medium-term primary surplus above the 2.4% committed for this and next year (or 3% at the consolidated level).
- Absent an increase in the primary surplus, restructuring terms can be improved somewhat but this may have only a limited effect on fair valuation. The gains of a smaller haircut would be almost offset by a higher fair exit yield.
- Alternatively, the government could also improve the terms of the offer by imposing an ex-ante forced rollover of currently performing debt (Bodens and Guaranteed Loans). We, however, see this outcome as improbable for the time being. We believe it could eventually become an option but only in the medium-term or after the economy starts showing signs of stagnation expected by late next year or early 2005.

Argentina: A sustainable but unattractive government proposal



Source: Deutsche Bank

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Introduction

We are using the guidelines presented by the Argentine authorities in recent weeks to update our fair value analysis of the defaulted debt.¹

Our conclusions are relatively straightforward:

- We believe that the government's proposal is consistent with a fair value of the debt between \$9 and \$14. We arrive at this result using an exit yield of 12%, consistent with the results of our Fundamentals to Spreads (F2S) model.
- Market prices are, therefore, expected to fall over the medium term, while the government's offer would need to improve.
- Based on that view, we continue holding zero exposure of Argentina's debt in our model portfolio.
- We believe that a successful restructuring is unlikely if the government does not achieve a medium-term primary surplus noticeably above the 2.4% committed for this and next year (or 3% at the consolidated level).
- Absent an increase in the primary surplus, restructuring terms can be improved somewhat but this may have only a limited effect on fair valuation. The gains of a smaller haircut would be almost offset by a higher fair exit yield.
- Alternatively, the government could also improve the terms of the offer by imposing an ex-ante forced rollover of currently performing debt (Bodens and Guaranteed Loans). We, however, see this outcome improbable for the time being. It could eventually become an option only in the medium-term or after the economy starts showing signs of stagnation expected by late next year or early 2005.

We proceed as follows: First, we describe the main principles guiding the government proposal and its implications for the recovery values of the debt. Second, we check the sustainability and financing outlook resulting from the government's proposal.

Third, we use our F2S model to estimate the fair exit yields consistent with the fiscal dynamics following the government's proposal. This provides us with a theoretically sound value for the new debt. Fourth, we study potential alternatives that would allow for improvement in the fair value of the restructuring offer. Finally, we conclude with an educated guess of what

could happen in the negotiation process and discuss reasonable values for the debt in this scenario.

We have also updated our Debt Restructuring Model given the new pieces of information available. The model allows investors to use assumptions different from our own. Readers should contact their DB sales representative for details.

Implications of the government's recent proposals

At the IMF meetings in Dubai in late September, Argentina presented some initial guidelines for how it intends to proceed with the restructuring of its external debt. These initial guidelines were further fleshed-out during a series of meetings with creditor Consultative Working Groups during late October². From the content of these presentations, we can identify the broad terms of Argentina's proposal and the value that it implies for the eligible debt.

Argentina intends to present a menu of bonds with different characteristics. The impression is given that holders of the eligible debt will be able to choose which of the new bonds they receive in exchange for their eligible debt, but that certain constraints will limit that choice. The main constraint appears to be a target for an overall debt stock reduction of 75%, explicit as the authorities' key goal.

The main exit bond options that Argentina has presented are:

Discount bond: Step-up coupon between 1-5%; average life of 8-32 years; 75% principal reduction.

Par bond: Fixed coupon of between 0.5-1.5%; average life of 20-42 years; no principal reduction.

Quasi-Par bond: Fixed coupon of between 1-2%; average life of 20-42 years; 30% principal reduction.

Given this menu of options and the constraint that the overall stock reduction should be 75%, it would at first appear that the exchange would need to be entirely for Discount bonds and that there isn't really an 'option'. However, we believe that Argentina considers the stock reduction to be relative to the entire eligible debt, including past-due-interest. Given that the authorities have suggested that they will not recognise past-due-interest, this immediately reduces the eligible debt by approx. 15% (DB estimates). This would then allow approximately 7% of the remaining debt to be exchanged for Par bonds (with no principal reduction) and the remaining 93% to be exchanged for Discount bonds (with a 75% reduction) such that the final stock would be 25% of the original eligible.

¹ See "Argentina's External Debt: Determining Value through Debt Sustainability", June 16, 2003.

² Copies of the presentation from Dubai and the one provided to the Consultative Working Groups can be obtained on: <http://www.argentinedebtinfo.gov.ar/>

We have examined theoretical bonds with terms consistent with the above and find that the prices of the bonds (at a yield of 12%) would be approximately \$36, \$14 and \$18 for discount, par and quasi-par bonds respectively. When the associated principal reductions are applied, the effective value of each option (relative to a claim of \$100 face of eligible bond) becomes \$9.0, \$14.0, and \$12.5 respectively.

Thus, the initial terms suggest that the eligible debt is currently rich. These values are significantly below the levels at which the eligible debt is currently trading in the market (\$25-\$28). Hence, it is not surprising that the proposal was received negatively by investors. It is worth highlighting, however, that the government seems to be becoming more flexible than initially expected. Recently, for example, Minister Lavagna has suggested (not explicitly but by comments involving the concept of discounting) that the authorities could be targeting to a 75% NPV cut in the debt. This notwithstanding, we analyze the 75% face value cut proposal, which seems to be the official offer so far, and discuss potential changes to that afterwards.

Sustainability and financing analysis

We apply our sustainability analysis framework to conclude whether the proposed new debt conditions set the basis for a sustainable debt path. For this task, we use our own macroeconomic assumptions, but the companion excel model will provide enough flexibility for users to replicate the government's own projections.

As noted in previous sustainability analyses, below are the three most important macroeconomic assumptions that will determine sustainability.

- Federal government primary balance
- Economic growth
- Real exchange rate

Before discussing the rationale behind our assumptions, it is worth noting that we are now focusing on the Federal Government's balance sheet. This represents a change from the strategy in our previous reports, where we looked at the consolidated public sector accounts. The main reason behind a narrower definition of public sector is the fact that the debt under analysis is the federal government's debt. In addition, it is relatively easy to exclude the impact of provincial finances in our exercise by omitting the new federal debt that is backed by future revenue rights from the national sharing scheme. It could be arguable that despite strong collateral the entity responsible for all the new debt would be the central government. In our view, however, it is fair to assume that the provinces would not have major difficulties to serve their obligations with the government after the

restructuring done since the crisis. The estimated new federal debt that would count with provincial collateral is approximately USD10.2bn currently included in the government projection for provincial guaranteed bonds. The service of these bonds should be netted out with interest payments from the provinces.

For the federal government we envisage a primary balance that converges to 2.5% of GDP in the long run (consistent with a 3% of GDP primary result at a consolidated level with provinces). As noted previously, this may look effortlessly achievable after an estimated 2.2% of GDP record in 2003. On the basis of historical performance, however, maintaining this remains a considerable task. More importantly, this is the committed level under the current IMF program and seems to be the biggest fiscal effort the government is willing to commit to, at least at this stage. For a discussion of how to foresee the government's ability to reach this medium-term target, please look at our report of June 16, 2003.

As in previous analyses of sustainability, our definition of primary balance should be understood to include seigniorage revenues starting in 2004. Revenues from seigniorage could be substantial. They are estimated to exceed 1.0% of GDP this year and to eventually converge to a level of 0.2%-0.4% of GDP in the next couple of years. This assumes that monetization in the economy declines from 10% of GDP currently to around 8.5%, what is believed to be a better indication of base money in the long-term. Actually, the 2.5% of GDP primary surplus target for next year in the IMF program does include 0.25% of GDP from Central Bank operations.

We project growth to reach a steady state level of 2.5% (after 6.7% in 2003 and 4.4% and 2004). We were positively surprised by growth performance so far this year and we have recently revised upwards our growth projection for 2004. This notwithstanding, we continue to believe that our medium-term growth scenario accurately incorporates pending real institutional and economic constraints, like diminishing competitiveness and limited financing from a de-capitalized financial system.

We expect the exchange rate to appreciate in real terms, mostly through a declining but still considerable inflation. We project the real exchange rate index to converge to 1.5 to 2006 (from 1.0 in 2001, 2.15 at the end of last year, and an estimated 1.74 at the end of this year).

We believe that there are at least two reasons that justify our assumption of a currency that weakens approximately 50% in real terms with respect to the convertibility era. First, the currency was overvalued to begin with. Our own estimate of overvaluation was

17%³ while other estimations indicated similar levels of overvaluations. Thus, just to correct the overvaluation of the convertibility era would require a level of devaluation of approximately 15-20%. Second, export tariffs have been raised by 35 percentage points on average, and are unlikely to fade away soon. Finally, economic, political and financial fundamentals have deteriorated justifying further equilibrium depreciation. It is difficult to quantify, but our estimates, based on our balance of payments projections, indicate that this latter effect could add an additional 15%-20%. Of course, this estimation is subject to a margin of error (please see the June 16th report for sensitivity tests of this and other macro variables).

Other macroeconomic assumptions are listed in the table below.

DB Baseline: Main macroeconomic assumptions							
	2002	2003	2004	2005	2006	2007	2008
NFPS Prim Bal	0.6%	2.1%	2.5%	2.5%	2.5%	2.5%	2.5%
Real Growth							
Rates	-10.9%	6.7%	4.4%	3.0%	2.5%	2.5%	2.5%
GDP Deflator	53.4%	7.6%	7.8%	6.0%	5.0%	3.5%	3.5%
Exchange/Interest rate Assumptions							
FX rate (eoy)	3.36	2.87	2.93	2.9	2.9	2.9	3.0
REER (eoy)	2.15	1.74	1.68	1.61	1.55	1.52	1.50
FX rate (avg)	3.14	2.87	2.90	2.93	2.93	2.93	2.94
6 mo-Libor	1.30%	1.80%	2.30%	4.00%	4.00%	4.00%	4.00%
5Y UST Yields	2.85%	3.00%	3.50%	4.00%	4.00%	4.00%	4.00%
Ext Bonded (USD)	15.0%	13.0%	12.0%	12.0%	12.0%	12.0%	10.0%
ARS Debt							
<i>Inflation-Indexed</i>	12.0%	10.0%	8.0%	8.0%	8.0%	8.0%	8.0%
<i>Fixed rate (ARS)</i>	20.0%	16.0%	14.0%	14.0%	12.0%	12.0%	12.0%
Additional Bodens							
Recognition (USD mn)	8,500	0	0	0	0	0	0
Other Skeletons	0	0	0	0	0	0	0

Source: DB Global Markets Research

Based on these assumptions, we estimate that the overall debt position for the federal government in Argentina would be sustainable were the debt restructured under the proposed conditions. More specifically, our baseline scenario projects Argentina's debt/gdp ratio to converge below 50% in the next few years, from 160% of GDP estimated in 2003.

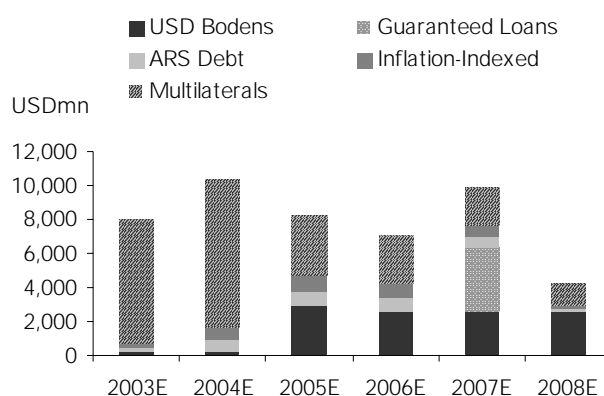
The proposed debt restructuring conditions, however, do not totally prevent Argentina from facing heavy gross financing needs in the next few years. These needs have emerged as a result of the new debt issued since the beginning of the crisis in

³ See *Current Account Sustainability in Latin America*, Deutsche Bank, March 2000.

2002. The new debt has helped sustain the banking system and cancel pending liabilities with public sector employers, pensioners, exporters, suppliers, and provinces (although we do not count this last component for the reasons discussed above).

Amortization of this new debt is expected to climb from less than USD300mn in 2003 and 2004 to USD2.9bn and USD5.3bn in 2005 and 2007. This debt coming due does not even count the multilateral debt, which is assumed to be rolled over during the foreseeable future. To this already significant burden, the newly restructured debt is estimated to add some USD1.1bn every year.

Amortizations on Performing Debt



Source: DB Global Markets Research

As noted, the sizeable holding of restructured debt by banks and pension fund administrations will certainly mollify the eventual refinancing risk in a couple of years but the financing challenge can not be understated. Given the origins of the Bodens and the Guaranteed Loans still performing, it should not be a surprise that financial institutions in Argentina are the primary holders of this debt. Indeed, holdings of local financial institutions represent approximately 100% of the guaranteed loans still performing. This could certainly be a buffer for refinancing as it has been the case in the past. Notwithstanding, forcing refinancing by the banks could seriously delay the recapitalization of the system and be an obstacle for recovering a strong and sustainable growth path. This was exactly what happened to Mexican banks after 1995 due to Fobaproa debt. (For a complete analysis on this new debt, see our prior publication *Argentina: New Debt Update*, published on May 12, 2003)

Fair exit yields

We assume an exit yield of 12%. While this may be considered relatively optimistic, we believe that there are good reasons to expect that exit yields are likely to be lower than the ones previously used. As noted

above, the restructuring proposal is consistent with a continuously declining debt to GDP ratio. Thus, the assumption on exit yields must be consistent with this condition and we would expect that debt viewed as sustainable (under a given set of macro-economic assumptions) would be valued at relatively low (i.e. non-distressed) yields. In addition, the fact that yields within EM as a whole are currently relatively low should also support lower exit yields. Take, for instance, the recent debt exchange in Uruguay. Yields for Uruguay 33s are currently 11.4%

Our exit yields are consistent with the results of our Fundamentals to Spreads (F2S) model. We have utilized the parameters of our baseline simulation to estimate the fundamentals-driven term structure of default probabilities. Based on those default probabilities we have estimated fair yields (and prices) for the discount bond. The model uses as inputs the debt to GDP ratio and its composition post-restructuring as well as the other macro assumptions included in our baseline scenario (see the appendix to our "Fundamentals to Spreads October Update" piece to find a more detailed description of the mechanics of the model).

How can the proposal be improved?

We believe it is extremely unlikely that the existing proposal will succeed. Fair value levels of the government's offer (between \$9 and \$14 according to our calculations) are well below the level at which eligible debt is currently trading in the market (\$25-\$28). While we believe that debt is rich and that prices will most likely fall, we find it difficult to believe that investors will accept any offer with recovery levels anywhere close to those implicitly proposed by the government. Instead of tendering their bonds, investors may find it more useful to hold on to them and keep them either for potential litigation or with the expectation that a future restructuring-offer comes with better terms.

There are few ways the government can improve the offer. The obvious one is to assume a larger primary surplus than the one underlying the government's proposal. Another one is to improve the restructuring terms based on the existing macro assumptions. We start with the latter one.

We find that the terms of the restructuring proposal could be improved, but its fair valuation impact may not suffice to secure a successful restructuring. Our companion spreadsheet suggests, for example, that without changing our own macro economic assumptions the government could apply a 60% notional haircut to the total claim (where the total claim would also include PDI).

Using an unchanged exit yield (12%) the fair recovery level for Rep 08 would be \$16.3. However, it is safe to assume that in this new scenario of lower haircut the exit yield would need to increase as the up-front debt reduction would be lower.

Indeed, our F2S model indicates that a fair exit yield under this alternative proposal would need to be around 15%. This would result in a fair recovery value of \$12.1 for Rep 08. Thus, the fair price would improve \$3 roughly over the government's original proposal. Notice that unlike the baseline scenario, the debt in this case would not fall below 50% (as it was the case under the government's proposal) but would rather stabilise a bit above 60%. This weaker "solvency" situation lies behind our higher fair exit yield result.

Alternatively, under the government's own macroeconomic assumptions, the terms of the restructuring could be improved resulting in recovery values slightly below 20. The main difference between the government's assumptions and our own is the government's higher medium-term growth at 3% (vs 2.5% under our baseline). Under that scenario the government could offer the same discount bond but with a lower notional haircut (40%). Under the authorities' scenario, fair recovery values go to 18.5. This is still below market prices and insufficient to guarantee a successful restructuring. In this alternative scenario, we are also using an exit yield of 15% (consistent with F2S estimates).

We can also change other restructuring assumptions. We could modify, for example, the structure of the bonds being offered. Alternatively, we could change the relative treatment of PDI vs. principal claim. We have analysed those in detail in our previous piece (June 03). Our main conclusion there was that changes in the restructuring assumptions may affect the relative value between bonds but it is unlikely to change significantly the NPV received by investors.

As a side point, the government has also mentioned the possibility of issuing a GDP-linked bond. From a purely theoretical standpoint it could make sense to link future coupon payments to GDP growth. However, beyond the logistical complications of linking coupon payments to a number controlled by the government, the market is unlikely to give much value to the GDP enhancement. One of the reasons for this is that the GDP enhancement could not be valued using an arbitrage-free framework and so investors would be likely to heavily discount its value. Certainly it is unlikely that investors would attribute value to such a warrant anywhere close to the true cost to the government of providing it.

The bottom line is that the only sensible way to increase the recovery value of the debt would be to improve the primary fiscal target underlying the restructuring offer. The primary balance is actually the most crucial macro-economic assumption (and the main one under relative government's control). Our model suggests that a primary surplus of approximately 3.0% (at the federal level or 3.5% consolidated) would be enough to justify current market valuations. As we pointed out in our previous piece (June 16, 2003) the sensitivity of the results to the primary surplus assumption is remarkable. If we increase our baseline primary surplus from 2.5% to 3%, the fair price of the debt almost doubles (from 12 to 24.6 for Rep 08s under 2.5% and 3% primary surpluses respectively).

Such a high degree of sensitivity can be rationalised fairly simply. The long term primary surplus needed for sustainability should be approximated by the following equation:

$$\text{Primary Balance} = (\text{Interest Rate} - \text{Growth Rate}) \times \text{Debt/GDP}$$

Within our model, we project the average annual interest rate on the debt to be approximately 10.0% (nominal). Considering our nominal GDP growth rate assumption of 6% (2.5% in real terms plus 3.5% deflator), the equation above suggests that a 0.5% increase in the primary balance would be sufficient to support a debt stock which is higher by 12.5% of GDP. Given that the stock of debt to be restructured represents approximately 50% of GDP (based on a post-adjustment estimate for GDP of \$180bn), and that the NPV haircut would be close to 75%, the restructured debt would fall to 12.5% of GDP. Under the 3% primary surplus, the country could support an additional 12.5%, thus double that under an assumption of a 2.5% primary surplus. This should be consistent with prices that also are grossly double.

We could also change other macroeconomic variables, such as real exchange and growth. While such variables are important, they are not under government's direct control. Our previous piece shows the sensitivity to the changes in growth rate assumptions.

What could happen?

Given the complexity of the process and the many, and heterogeneous, individuals and institutions involved in the negotiation, this section is only an educated guess of what could happen. However, it aims at reflecting our knowledge about how the different market participants behave in a variety of circumstances.

For a restructuring to be successful, the government would need to make an offer worth more than market prices. This is particularly true now

due to the considerable component of retail investors. Market prices may fall from current levels, and we believe they will, but we believe that the government will need to present an offer with recovery values well above 20.

Unfortunately, the government does not appear yet willing to commit to a larger fiscal effort. As we hinted at the beginning, the authorities have recently shown some more flexibility to approach the negotiation. In particular it is worth highlighting Minister Lavagna's recent suggestion that their aim could be to achieve a 75% NPV (not notional) haircut. However, as we believe we have shown, absent a further fiscal effort it is very unlikely to obtain recovery values consistent with a successful restructuring.

Although we do not see the government now willing to accommodate a greater primary surplus, we don't rule it out as a response to deteriorating economic conditions down the road.

Alternatively, the government could change the terms of the currently performing debt. For example, a unilateral extension in the maturity of the BODENs and Guaranteed loans would help reduce the financing needs for the next few years. Given that presumably the forced rollover would be at current (below market) rates, it would result in NPV savings to the government. **According to our analytical framework, a 10 years maturity extension on BODENs and Guaranteed loans could improve the offer by \$12 on average.**

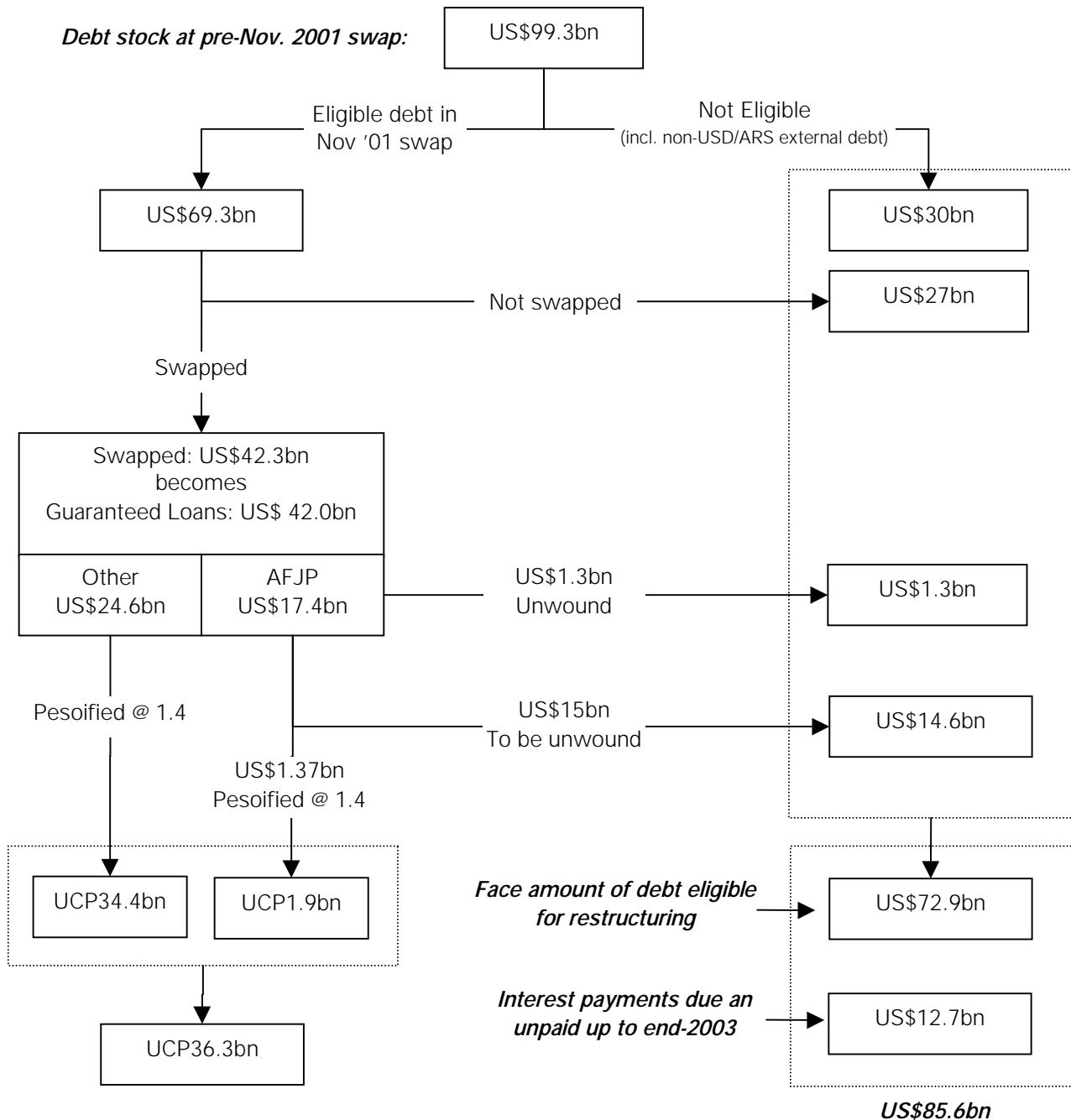
The above may also be perceived as an unviable option today, but it can be possible in the future. The government has repeated that currently performing debt will be honoured. The fact that this debt is the payoff to already restructured deposits and other assets held by the population makes totally credible the government's commitment. This actually makes many market participants feel this debt is senior to any other, probably even the multilateral debt.

This view, however, is only consistent with what seems to be the government officials' belief that Argentina could achieve sustainable strong growth even despite not solving some pending institutional handicaps; i.e. the defaulted debt, a poorly-capitalized banking sector and an unfriendly and unstable legal framework. We believe that this new paradigm could eventually be proved wrong as serious investment decisions would be held waiting for a more predictable and favourable institutional set up. Thus, as time goes by we expect the initial fuel from currency depreciation, import substitution, and reversal of high precautionary savings to fade away and questioning to start arising again on the right development strategy. We project this to become more evident earliest in the second half

of next year. Only then, could all options that seem politically impossible today become real alternatives.

Appendix A: Summary of the debt eligible for restructuring

In its presentation at Dubai, Argentina presented a figure of US\$87.05bn⁴ as the stock of debt it considered to be eligible for restructuring. This figure was higher than expected to many observers (ourselves included) so it is worth considering how Argentina arrived at this number. First, we understand that this figure includes all due and unpaid payments since the time of default. In addition, the figure includes the stock of debt associated with the guaranteed loans for which the domestic pension funds (AFJPs) refused to accept the pesoification in January 2002. Accounting for these factors, we arrive at a total eligible stock within US\$1.5bn of the number presented by Argentina. Recently, Argentina has revised the number for the stock of eligible debt to US\$99.4bn⁵. The explanation for the US\$12.4bn increase was that the new number considered accrued and capitalized interest (not just missed payments). While this change of accounting would indeed justify a significant increase (the capitalization of the '18s and '31s alone adds US\$4.4bn), we cannot account for the magnitude of the change.



⁴ Argentina's Restructuring Guidelines – Dubai - September 22, 2003 – Slide 20

⁵ Consultative Working Groups Meeting – October 2003 – Slide 20

Appendix B: Using the spreadsheet model

The model has four main sheets:

- **'Inputs'**

On the left half of this sheet, the user can input all their assumptions on primary balance, exchange rate, inflation, different interest rates, skeletons, privatizations etc. In addition, assumptions about the external debt restructuring can be input. On the right hand side of the sheet are the results of the model given these assumptions. The results include the fiscal deficit, financing needs and the debt to GDP path (IMF definition).

Restructuring assumptions:

For the restructuring the claim for each defaulted asset is divided into 'Future Principal', 'Past due Principal' and 'Past due Interest' (PDI). The Future Principal claim can be determined either as a pure notional amount (Face) or by discounting all future cash flows (principal and interest) at a suitable rate (NPV). The rate chosen for the NPV is such as to equate the total claim of the debt under the two approaches (Face and NPV). A separate rate is used for each currency of debt. For USD debt the rate used is 11.45%. Having determined each aspect of the claim a haircut is applied to each component. The reduced claim is then exchanged for a notional amount of a new bond. New bonds can be defined on the 'New Bond Definitions' sheet (see below).

Restructuring results:

At the bottom right of the 'Inputs' sheet the fair prices for key defaulted assets are shown (based on the input restructuring assumptions). These fair prices are derived on the basis of a given discount rate which the user can change. In addition, when the 'Solve' button is pressed the model will calculate the haircut on Future Principal (and haircut on collateralised principal claim) that is consistent with debt sustainability. Once a value is shown, the result can be applied to the assumptions by pressing the 'Apply' button.

- **'Model'**

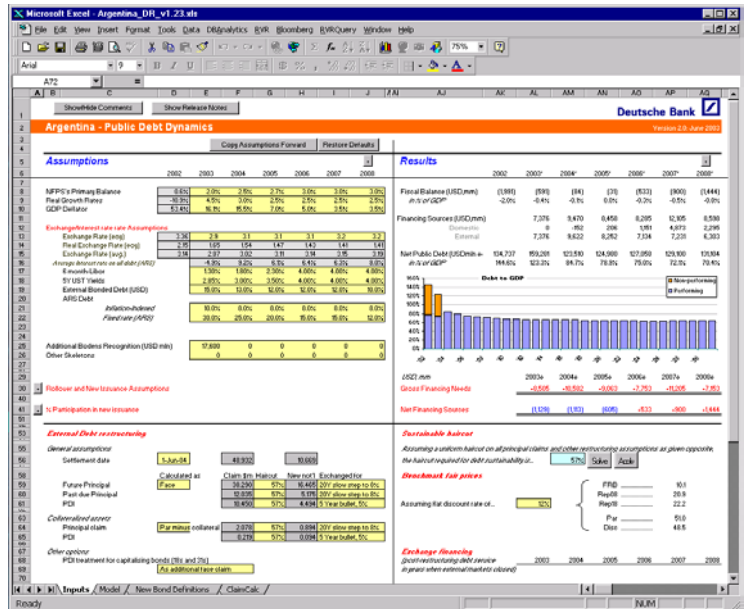
This sheet shows all the macroeconomic flows that drive all the results. Each individual line of this sheet can be drilled to show further detail by clicking the small '+' buttons to the left of the sheet. There is a significant wealth of information that can be reached by drilling to different levels.

- **'New Bond Definitions'**

On this sheet the user can define a variety of bond structures that may be created in the restructuring. Each column on the sheet defines a separate bond. The first main block of yellow cells contains the coupon rates (defined on a semi-annual basis). The second block of yellow cells is used to define the principal repayment schedule. This first (orange) row of this block allows for a principal payment on the exchange date (i.e. cash on settlement). The values in each column of the principal repayment section must sum to 100%. Once a unique name is entered at the top of the column, the new bond will become available in the drop-down lists on the 'Inputs' sheet.

- **'Claim Calc'**

This sheet lists (virtually) all the individual defaulted assets. The claim of each is calculated on this sheet according to the assumptions on the 'Inputs' sheet. The current fair value of each asset is also calculated on this sheet. For accurate calculation of the claim values of certain assets, the values in the green cells at the top of the 'Claim Calc' sheet must be updated. These values are simply current FX rates, refixing rates for FRNs and current collateral value on Pars and Discounts.



Certifications

The views expressed in this report accurately reflect the personal views of the undersigned lead analyst(s) about the subject. In addition, the undersigned lead analyst(s) has not and will not receive any compensation for providing a specific recommendation or view in this report.

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