Closer Look

MEMORANDUM

Bayer 1Q13 - Contour sales up 2% in 1Q13; Contour Next and Contour Next USB launch in the US; Big Four BGM down ~6% in 1Q13 - April 26, 2013

Executive Highlights

- Contour (Bayer's lead BGM franchise) revenue totaled €170 million ($225 million), up 2% as reported and 3% operationally from 1Q12.
- The Contour Next and Contour Next USB blood glucose meters launched in the US this month; Contour Next also launched internationally.
- Combined Big Four Diabetes Care revenue reached an estimated $1.8 billion, down ~6% from 1Q12 sales.

Yesterday, Bayer CEO Marijn Dekkers led the company's 1Q13 financial update. Revenue for Contour, Bayer's lead blood glucose monitor (BGM) franchise, totaled €170 million ($225 million), up 2% as reported and 3% operationally on a challenging year-over-year (YOY) comparison: 1Q12 saw 9% reported growth and 7% operational growth. Sequentially, revenue fell 12%; however, 4Q12 Contour revenue had reached its highest single-quarter result in over five years. We roughly estimate that overall Diabetes Care revenue was €235-241 million ($311-320 million) in 1Q13, down ~4% as reported from 1Q12 when revenue was up 2-4%. Management noted both pricing and reimbursement pressures in the market. However, despite these challenges, management made clear that they were "committed to this business" and remarked that despite the slight decline in the first quarter, Bayer was doing "quite well" compared to competitors. Turning to pipeline updates, Bayer launched its remaining two Contour Next platform products, Contour Next and Contour Next USB blood glucose meters, in the US this month. The Contour Next also launched internationally (Contour Next USB launched outside of the US in June 2012). No updates were given on Bayer's in-house continuous glucose monitor.

Bayer was the last of the Big Four BGM companies (Bayer, Abbott, J&J, Roche) to report. Combined revenue reached an estimated $1.8 billion, down ~6% from 1Q12 sales. We estimate that Bayer's 1Q13 revenue placed it in third or fourth place for worldwide Diabetes Care sales in 1Q12, nearly neck-and- neck with Abbott. We believe that J&J had the highest worldwide sales in 1Q13, inching above Roche who previously held this spot in 4Q12. Abbott worldwide sales were nearly flat from 1Q12, actually giving the company the strongest 1Q13 sales performance as measured by growth. Indeed, 1Q13 was a challenging quarter for the Big Four market with pricing and reimbursement pressure that will intensify when CMS' competitively bid prices go into effect July 1. We look forward to following how these companies evolve and adapt to this market place. On a positive note, we believe that the challenges could lead to greater innovation in care delivery and new partnerships between industry and payers.

On the pharmaceutical front, sales of Bayer's alpha-glucosidase inhibitor Glucobay (acarbose) were €101 million ($133 million), up ~20% on a reported and operational basis from 1Q12 when growth was down 5% and 10%, respectively. Aflibercept (marketed as Eylea for wet age-related macular degeneration) remains in phase 3 for a diabetic macular edema indication. Notably, in February Bayer/Regeneron initiated an additional safety and efficacy trial as part of their phase 3 program (ClinicalTrials.gov Identifier: NCT01783886; called VIVID-EAST).

DIABETES DEVICES

- **Contour (Bayer's lead BGM franchise) sales totaled €170 million ($225 million), growing 2% as reported and 3% operationally from 1Q12**. The year-over-year (YOY) comparison was not easy as 1Q12 revenue grew 9% and 7%, respectively. The upcoming quarters will also face challenging YOY comparisons (see below). Management indicated that Contour sales in 1Q13 were driven by the launch of Contour Next blood glucose meter in Germany and the US.

	4Q11	1Q12	2Q12	3Q12	4Q12	1Q13
Contour Revenue in millions of EUR (USD)	€170 ($228)	€166 ($218)	€174 ($224)	€189 ($236)	€193 ($250)	€170 ($225)
Contour YOY Reported Growth	6.2%	9.2%	9.4%	18.9%	13.5%	2.4%
Contour YOY Operational Growth	6%*	7.3%	4.2%	11.7%	10.7%	2.6%

*4Q11 operational growth estimated from full year and first-nine-months data. Currency conversions are based on average exchange rates from quarter start to end on oanda.com (e.g., 1.3207 USD per EUR in 1Q13).

- **Sequentially, Contour sales fell 12% as reported** from a record-high 4Q12. For historical context, sales were down 2% in 1Q12, down 5% in 1Q11, and up 6% in 1Q10. As a reminder, 1Q12 is typically a challenging quarter for device companies due to the seasonality of patients' insurance structures (e.g., the resetting of deductibles).

	4Q11	1Q12	2Q12	3Q12	4Q12	1Q13
Contour Revenue in millions of EUR (USD)	€170 ($229)	€166 ($218)	€174 ($224)	€189 ($236)	€193 ($250)	€170 ($225)
Contour Sequential Growth, Reported	6.9%	-2.4%	4.8%	8.6%	2.1%	-11.9%

- **By our estimates, overall Diabetes Care revenues were €235-241 million ($311-320 million) in 1Q13**, representing ~4% reported sales decline from 1Q12 when revenue grew 2-4% as reported. Baring in mind the limited information provided about the Diabetes Care business, we stress these numbers are estimations.
    - **Assumptions**: Medical Care growth (Diabetes Care is a subset of this business segment) was down 3.6% as reported and 1.6% operationally in 1Q13. Diabetes Care "declined slightly overall," which we assume refers to operational growth based on how Bayer reports its financial information. Therefore, we roughly estimate that Diabetes Care mirrored Medical Care, which also fell "slightly" on an operational basis. The other two segments under the Medical Care umbrella were described as being "slightly below" the prior-year period. We do not believe this description gives reason to think Diabetes Care growth deviated significantly from overall Medical Care growth (e.g., in previous quarters Diabetes Care emerged as a positive driver for Medical Care).
- **Bayer attributed the Diabetes Care business decline primarily to price and reimbursement pressure.** Looking forward, Bayer expects its medical care market to shrinkslightly in 2013, which we assume is due to the decline the company anticipates in the diabetes care market (Bayer expects the market for its Radiology and Interventional business, the other two units in its Medical Care segment, to expand). The shrinking diabetes care market has multiple drivers, including: 1) growing low-cost competition; 2) reduced patient access; and 3)

ongoing and increasing pricing pressure. By the same token, there are naturally other elements driving business positively, including strong feedback on the Contour USB, earlier diagnoses, more frequent diagnosis, more changes in therapy driving more frequent testing, etc.

- **For the Big Four blood glucose monitor companies (Bayer, Roche, Abbott, and J&J), Diabetes Care revenue totaled ~$1.8 billion in 1Q13, down ~6% from 1Q12.** Again, we highlight these are our estimates only, and that it is an imperfect exercise due to differences in reporting. Each company's Diabetes Care total includes some fraction of non-BGM revenue - insulin delivery for Roche and J&J, CGM for Abbott, and A1c testing for Bayer. For more on J&J, see our 1Q13 report at http://www.closeconcerns.com/knowledgebase/r/59b616b4. For Roche 1Q13, see http://www.closeconcerns.com/knowledgebase/r/f5191b53. For Abbott 1Q13, see http://www.closeconcerns.com/knowledgebase/r/6a672438.
    - **The 1Q13 decline reflects both pricing pressure and reimbursement challenges**. In review, Roche management noted price pressure from low cost competitors (price pressure of 5-10%, with some providers offering products at 30-40% lower costs) and impact from CMS' competitive bidding program. Abbott highlighted pricing pressures and lower Medicare mail order purchases. J&J cited competitive pressure and an initial impact from competitive bidding.
    - **CMS' competitive bidding program stands to be an important contributor to 2013 market dynamics.** New payment amounts are set to go into effect in the mail order and retail segment on July 1. Competitive bidding has been a long time coming in mail order; however, lower than expected prices ($10.41 for a 50-ct box of strips) and uncertainty regarding the interplay between the Medicare and private sector make the outlook unclear.

1Q13 Diabetes Care Revenue Comparison						
Company	**Worldwide**		**US**		**International**	
	1Q13 Revenue in Millions	*Reported (Operational) Growth from 1Q12*	*1Q13 Revenue in Millions*	*Reported (Operational) Growth from 1Q12*	*1Q13 Revenue in Millions*	*Reported (Operational) Growth from 1Q12*
Bayer	$311-320	-3.6% (-1.6%)	-	-	-	-
Abbott	$316	-0.5% (0.2%)	$133	-3.7%	$183	1.9% (3.2%)
J&J	$600	-10.4% (-9.8%)	$283	-19.6%	$317	-0.3% (0.9%)
Roche	$579	-4.4% (-5%)	$101	-21% (-22%)	$478	0%

*Bayer revenues are roughly estimated based on Contour results, overall Medical Care growth, and past Diabetes Care performance. Bayer does not provide financial results for Diabetes Care, nor the geographical split. Currency conversion for Bayer and Roche are based on average exchange rate from January 1 - March 31 on oanda.com (e.g., 1.3207 USD per EUR). Different results are possible with different currency conversion. Roche does not report revenues for an international category. Roche's growth was determined from EMEA and RoW breakdown, thus no operational growth is provided.

- **In April, Bayer launched its remaining pipeline products on the Next platform: Contour Next USB in the US and Contour Next in the US and internationally**. The meters are listed as "Now Available" on the company's Contour website and launch of the Contour Next in the US and Germany was highlighted as a driver for Contour franchise growth. Internationally, the Contour Next USB launched in June 2012. For a clearer picture of Bayer's Next line of BGMs, please see below.

Product	Description	Timeline
Contour Next EZ (Contour XT outside the US)	A form factor similar to the Contour but using the new Next strips.	Launched in August 2012 in the US and in April 2012 internationally.
Contour Next USB	A form factor similar to the Contour USB but using the new Next strips	Launched in the US in April 2013. Launched internationally in June 2012.
Contour Next Link	A form factor similar to (but slightly larger than) the Contour USB but also using the new Next strips, able to sync with the Medtronic Revel pump and Guardian CGM, and including a built-in CareLink USB.	Available with new Medtronic Revel or Guardian CGM orders as of September 2012. Those not ordering a new pump or CGM were to be contacted by Medtronic in January 2013 to obtain the new meter. We did not hear any update on this product during Medtronic's last earnings call.
Contour Next	The biggest differentiator from the Contour Next EZ appears to be its "second-chance sampling," whereby users can apply additional blood to the same test strip (e.g., apply a very small blood sample, squeeze more blood out of their finger, and apply more to the strip).	Launched in the US and internationally in April 2013.

- **Bayer provided no updates on its CGM system in early clinical development.** The last we heard of the system was at ATTD 2012. (See page 23 of our ATTD 2012 coverage at http://www.closeconcerns.com/knowledgebase/r/e83c9c63.)

DIABETES DRUGS

- **Bayer's alpha-glucosidase inhibitor Glucobay (acarbose) brought in €101 million ($133 million) in 1Q13, growing 20% on a reported and operational basis from 1Q12.** The YOY comparison was easy with 5% reported sales decline and 10% operational sales decline in 1Q12. Sequentially, revenues grew 2%. As we've come to expect, Glucobay was included under Bayer's list of "best selling pharmaceutical products" for the company in the quarter. Sales were driven by distribution expansion in China.

	4Q11	1Q12	2Q12	3Q12	4Q12	1Q13
Glucobay Revenue in EUR m (USD m)	€96 ($130)	€84 ($110)	€103 ($132)	€122 ($153)	€99 ($128)	€101 ($133)
Glucobay YOY Growth,	10.3% /	-4.5% /	14.4% /	38.6% /	3.1% /	20.2% /

Reported/Operational	6%*	-10.0%	2.7%	23.5%	-1.3%	20.3%
Glucobay Sequential Growth, Reported	9.1%	-12.5%	22.6%	18.4%	-18.9%	2.0%

*4Q11 operational growth estimated from full year and first-nine-months data. Currency conversions based on average exchange rates from quarter start to end on oanda.com (e.g., 1.3207 USD per EUR in 1Q13).

- **Regeneron/Bayer's VEGF Trap-Eye (intravitreal aflibercept) remains in a phase 3 development program for a diabetic macular edema (DME) indication.** The program consists of four studies (ClinicalTrials.gov Identifiers: NCT01363440 [conducted in the US, called VISTA-DME], NCT01331681 [conducted in Europe and Japan, called VIVID-DME], NCT01512966 [conducted in Japan, called VIVID-Japan], and NCT01783886 [conducted in Russia, China, and other Asian countries, called VIVID-EAST]) with estimated primary completion dates of December 2013, May 2013, September 2013, and February 2015, respectively. All studies are active and have completed enrollment, with the exception of NCT01783886, which was initiated in February and is currently recruiting. As a reminder, aflibercept is marketed under the trade name Eylea for wet age-related macular degeneration (wAMD) and has been approved in the US since 2011 and in the EU since November 2012 for this indication.
- **Considering the primary completion estimates for Regeneron/Bayer's phase 3 studies, the earliest Eylea could be FDA-approved for DME would be 2014, potentially two years behind Roche's Lucentis (ranibizumab).** As a reminder, in August 2012, Roche secured FDA approved for the 0.3 mg dose of Lucentis for DME, making Lucentis the first pharmaceutical therapy the FDA has approved for DME. Lucentis was approved for DME in the EU in 2011. A comparative efficacy study of Eylea, Lucentis, and Avastin1 in DME by the National Eye Institute in collaboration with Roche and Regeneron Pharmaceuticals could help shape the DME pharmaceutical market (ClinicalTrials.gov Identifier: NCT01627249); however, considering the trial is not slated for primary completion until January 2015 and study completion until January 2016, its impact may be dampened if indeed Eylea and Lucentis have already been competing on the market for some time. The trial began recruiting in August 2012 and is continuing to do so (according to ClinicalTrials.gov).
- **In addition to Eylea and Lucentis, the DME competitive landscape is very active and includes several candidates:**
    - **Alimera Sciences/pSividia's Iluvien is an implantable device that releases fluocinolone acetonide (a corticosteroid) and received approval for DME in several European countries in 2012 and early 2013.** Iluvien's one-time injection administration (lasting up to 36 months) gives it an advantage over currently available anti-VEGF therapies (Lucentis, Avastin, Eylea), which all require initial monthly injections over the first three months (Eylea) or one year (Lucentis and Avastin), as well as more infrequent supplemental injections. However, the disadvantage of steroids is the1 As a reminder, Avastin is a cancer drug that is the parent compound to Lucentis; since the dose of anti-VEGFhigh frequency of side effects (cataracts, increase in intraocular pressure). An FDA complete response letter in November cited safety and side-effect concerns; Alimera noted that addressing the FDA's concerns would be financially prohibitive, and we have not heard any updates on the status of resubmission in the US.
    - **Allergan's Ozurdex (dexamethasone intravitreal implant) is in ongoing phase 2 and 4 trials for DME.** Dexamethasone is a corticosteroid, like Iluvien, and Ozurdex is already FDA-approved for macular edema following RVO. The phase 2 program includes trials comparing Ozurdex head-to-head with Lucentis(ClinicalTrials.gov Identifier: NCT01492400; primary completion date January 2015) and Avastin (ClinicalTrials.gov Identifier: NCT01571232; primary completion date June 2013). ClinicalTrials.gov lists two

phase 3 studies as having completed in mid-2012 - about a year earlier than initially expected (Identifiers: NCT00168389, NCT00168337). The ongoing phase 4 study will investigate a special patient population (n=30) of DME patients requiring pars plana vitrectomy surgery (ClinicalTrials.gov Identifier: NCT01613716; primary completion date September 2013).

- **Ampio announced earlier in January that the FDA accepted the company's IND for Optina (oral low-dose danazol).** The drug reported positive phase 2 results in August, demonstrating that Optina reduced retinal thickness and improved visual acuity in a 12-week phase 2 study (n=32; for details, please see our August 19, 2012 *Closer Look* at http://www.closeconcerns.com/knowledgebase/r/b4084a42). Ampio held a pre-IND meeting with the FDA in late July during which the FDA agreed that Ampio could develop Optina through the 505(b)2 pathway (the traditional NDA is a 505(b)1), meaning Ampio may incorporate pre-existing data from a reference drug to save time and money in Optina clinical trials. Optina's oral administration would give it a clear advantage over Lucentis, Avastin, and Eylea, which require regular intravitreal injections. ClinicalTrials.gov lists one phase 3 trial that is currently recruiting, which will compare best corrected visual acuity on Optina vs. placebo after 12 weeks (Identifier: NCT01821677).
- **iCo Therapeutics and JDRF's iCo-007, an antisense inhibitor of C-raf kinase, is currently in phase 2.** iCo announced that as of the midpoint of the phase 2 iDEAL study, no patients had experienced drug-related serious adverse events, the trial had exceeded its recruitment requirement, and iCo expects to announce results in 4Q13 (ClinicalTrials.gov Identifier: NCT01565148). For more information on the iCo/JDRF partnership, please see our April 7, 2012 *Closer Look* at http://www.closeconcerns.com/knowledgebase/r/6d3e2f90.
- **GSK's darapladib (a Lp-PLA2 inhibitor) completed a phase 2 study for DME in February 2013** (ClinicalTrials.gov Identifier: NCT01506895); results have not been released. Darapladib's oral administration would give it an advantage over the anti-VEGF treatments, which require injection. Darapladib's primary indication will be atherosclerosis, for which it is currently in phase 3 development.
- **DME drugs in preclinical development include** ActiveSite's plasma kallikrein inhibitor and KalVista's plasma kallikrein inhibitor. It is too early to speculate on the clinical success of these candidates, but they would have the significant advantage of being orally administered.

- **In wAMD, Eylea has 48% market share in Japan and 42% market share in Australia. In Europe, launch and negotiations with reimbursement agencies are ongoing.** As areminder, in November 2012 Bayer received marketing authorization from the European Commission for the use of aflibercept for the treatment of wAMD. The company also received approval in Japan and Australia in 2012. During Roche's 1Q13 call, management indicated that US AMD share had stabilized at ~25% Lucentis, ~25% Eylea, and ~50% Avastin. For detail, see our Roche 1Q13 report at http://www.closeconcerns.com/knowledgebase/r/f5191b53.
  - **During Novartis' 1Q13 update, management cited the launch of Eylea as the reason for Lucentis' slower sales in the quarter.** In particular, Novartis management remarked that "Japan and Australia did not go well." As a reminder, Novartis holds rights to Lucentis ex-US, and Roche/Genentech holds rights to the product within the US. Much of the Q&A discussion during Bayer's call centered on ex-US wAMD competition between Eylea and Lucentis (see below).

Questions and Answers Excerpts

Q: On Diabetes Care, given the reimbursement changes we're seeing in the sort of midpoint of this year, what do you expect in terms of growth for Diabetes Care going forward? And then, just given this is going to be a more difficult market given more competitors coming in, lots of

pricing competition and reimbursement competition, what is the strategy for this area going forward? There are lots of players here that are either discussing pulling out, consolidating, or just riding it through. What are your preferences here for Diabetes Care?

A: We are committed to this business, we are driving this business. And yes, you are right, you see a slight decline in the first quarter, but actually we are doing quite well if you compare this with other competitors' market. And for example if you look at some countries, like Germany, we had quite a success in these markets with our new products. And we are confident that we will compete nicely in the next three quarters with this business. In addition, you have to understand that this business is providing quite a significant cash flow for us, which is important for our overall performance within Bayer healthcare.

Q: On Eylea, obviously a very, very strong performance. Could you give us some idea of the market shares you have in Japan and Australia versus Lucentis? And how you are doing in Europe?

A: We are actually very pleased about the successes we had in the early launch of Eylea on the basis of the countries we have launched in already. In Japan and Australia, we are quite successful. We have reached a market share in Japan now of 48%, and in Australia we have reached a market share of 42%. In Europe, we are also successful as expected. Obviously in Europe the progress will take a little bit more time because there are negotiations ongoing with reimbursement agencies. But the general feedback and the early successes we have now are based on the great feedback we get from doctors and also patients.

Q: On Eylea, is there any stocking there in the number you reported and could you point out which countries in Europe you've actually launched in so far? Could you discuss what selling point has actually helped you so much in Japan and Australia? How would Novartis potentially fight back? [Editor's note: As a reminder, Novartis holds rights to Lucentis ex-US, and Roche/Genentech within the US.]

A: There are practically no stocking effects for Eylea. The countries in Europe where we have launched a product is, for example, Switzerland and Germany and we are making starts in various other countries, but negotiations, as I said, with reimbursement agencies are ongoing. I guess the market waited for an alternative choice in this very serious indication and what we can see - I mentioned this already in my first answer - that the results we see in the actual treatment of patients, especially in Japan and Australia where we have gained this tremendous market share already, is very positive. Patients are very satisfied about the treatment and so are doctors. This is further driving the success in these countries and we hope to see this in other countries as well where we will roll out this product.

Q: The question is on R&D in 2013. Could you share with us what your priorities are for the products that are in earlier phase and could you share some thoughts in terms of the potential benefits?

A: [...] We have a series of other clinical work still ongoing in the various additional indications for Eylea because the success we have is just based on the first indication we launched which is already very successful, the wet age-related macular degeneration, but we have developments ongoing in the central retinal vein occlusion where we expect finalization of the trial in the first half of 2013. We have diabetic macular edema where we will have data in the second half [of 2013] and we are also having activities ongoing in myopic CNV, which is very important in the Asian population [...]

Q: In reference to Japan, rather unusually, Novartis on its call admitted they had screwed up the launch in Japan, and that they were taking those learnings on to other markets. Perhaps you could comment, maybe not on what Novartis did wrong, but really what you are doing right and what you think is the secret for success in that market?

A: Eylea success in Japan - I believe our success is based mainly on the following issues. First is that we put a lot of priority on this launch. We established a dedicated sales force for this product with experts we hired in this field and we have a great partner in Japan, which is launching the product together with us. This partner is Santen, which is the number one ophthalmology company in Japan. So both organizations are working

closely together and I believe this, besides the product quality and that the market waited for an alternative, made the success in Japan in the first quarter of 2013.

Q: You give Eylea less often than you give Lucentis, which effectively means that it is a lower price. You haven't mentioned price as being a key aspect of the success of this product. Would we be right in assuming that the effective price is significantly lower in Australia and Japan than for Lucentis?

A: Our pricing strategy is to have comparable prices to Lucentis, but you can assume, including rebates, that we have a competitive price versus Lucentis.

Q: On Eylea, could you say how many countries contributed to the performance in Q1? In particular, how many European countries outside of Japan and Australia?

A: [...] Eylea sales - I mentioned already Australia and Japan, we have been quite successful, but we have launched in various other countries: Germany and Switzerland, Colombia, Austria, Sweden, Norway, etc., and you will see the progress of this in due time.

--by Kira Maker and Kelly Close

[1]As a reminder, Avastin is a cancer drug that is the parent compound to Lucentis; since the dose of anti-VEGF