

Euromax Resources

DFS detail

Definitively feasible

On 6 January, Euromax (EOX) released the results of its feasibility study on its 100%-owned Ilovica gold-copper porphyry project. At a headline discount rate of 5%, the reported post-tax NPV was US\$440.1m (US\$3.77/share), while the pre-tax IRR was 19.8%. Significantly, the estimate of initial capex reduced to US\$474.3m cf US\$501.8m in the 2014 pre-feasibility study. The result is indicative of a more capital-efficient project and comes despite the DFS using lower long-term metals prices.

Year end	Revenue (C\$m)	PBT* (C\$m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
12/13	0.0	(5.4)	(6.6)	0.0	N/A	N/A
12/14	2.7	(6.6)	(7.8)	0.0	N/A	N/A
12/15e	3.7	(8.6)	(7.4)	0.0	N/A	N/A
12/16e	0.0	(8.8)	(3.5)	0.0	N/A	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles and exceptional items.

5.0Moz gold equivalent resource

Ilovica's resource comprises 2.9Moz Au and 1.2bnlb Cu, which is equivalent to a resource of 5.0Moz of gold equivalent. Considered merely as a gold deposit, we estimate that the global average cost of discovery of such a resource would be US\$73.8m, or US\$25.72/oz, cf EOX's market cap of US\$41.5m. This is relatively high within the global context, but reflects the preponderance of resources in the higher confidence measured and indicated categories and the close-spaced drilling (down to 50m x 50m in some cases) required to achieve this categorisation.

More risks mitigated than most

The principal risks to which the Ilovica project is exposed include sovereign risk, geological risk, metallurgical risk, engineering risk, financing risk and management risk. However, many of these risks are also already mitigated. Considering the Fraser Institute's annual study, Macedonian risk is likely to be close to the middle of the range of mining destinations for investment attractiveness. In the meantime, geological risk is mitigated by the porphyritic nature of the Ilovica deposit and metallurgical risk by the consecutive nature of the flotation/cyanide leaching process flow route. Finally, management risk is mitigated by the fact that half of Euromax's senior management are alumni of European Goldfields and therefore have experience in developing mines in the region (eg Stratoni and Skouries).

Valuation: C\$1.08 per share

In our January [update note](#), we estimated a fully diluted value of the life-of-mine dividend stream to investors in Euromax of C\$0.83/share. On the basis of the detail contained in the DFS, this has now increased to C\$1.08 (fully diluted at the current share price and forex rate). In the meantime, however, we estimate that the Ilovica resource alone has a value within the range US\$52.0-78.8m cf its market capitalisation of c US\$41.5m at the time of writing, ie Euromax is trading at a 20.2-47.3% discount to the in-situ value of its resources, notwithstanding their exploitation potential.

Metals & mining

30 March 2016

Price **C\$0.48**
Market cap **C\$56m**

C\$1.3211/US\$

Net cash* (C\$m) at end September 2015 2.1

*Excludes liability relating to streaming agreement with Royal Gold.

Shares in issue 116.8m

Free float 47%

Code EOX

Primary exchange TSX

Secondary exchange N/A

Share price performance



%	1m	3m	12m
Abs	17.9	76.8	54.7
Rel (local)	12.9	74.4	70.7

52-week high/low C\$0.6 C\$0.2

Business description

Euromax Resources is a Canadian resource company that focuses on the acquisition and development of mineral-bearing assets in south-east Europe. Its flagship asset, Ilovica, in Macedonia, is the subject of a recently completed definitive feasibility study.

Next events

Final (construction) permits June 2016

Construction commences H216

Analyst

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**Euromax Resources is a
research client of Edison
Investment Research Limited**

Investment summary

Company description: Macedonian copper

Euromax Resources is a Canadian resource company that focuses on the acquisition and development of mineral-bearing assets in south-east Europe. Its flagship asset, Ilovica, in Macedonia, is the object of a recently completed definitive feasibility study, which is the subject of this report.

Valuation: C\$1.08/share

On the basis of our long-term metals price and funding assumptions (see Assumptions and Valuation on pages 6-7), we estimate the value of EOX shares to be C\$1.08 per share, based on the net present value of maximum potential dividends payable to shareholders over the life of operations, discounted at 10% per annum. This valuation increases to C\$1.79 in 2022, when debt is repaid and the first substantive dividend distribution is payable. Of note however is the fact that execution of the mining plan at the parameters indicated in the DFS implies future potential (fully diluted) EPS as high as C\$0.43/share, ie in the same order of magnitude as the current share price, and average (fully diluted) EPS for the period during which operations are running at full capacity of C\$0.18/share. Stated alternatively, investors buying Euromax shares at the current price of C\$0.50/share may expect a 21.7% internal rate of return from their investment in Canadian dollar terms over a term of 25 years.

Financials: Banks mandated to provide US\$240m in finance

We estimate that Euromax had c C\$1.0m of cash on its balance sheet as at end-December 2015. Hereafter, we expect it to raise both debt and equity to develop Ilovica. As it draws down debt to fund the initial capital expenditure at Ilovica, we estimate that net debt (excluding the contingent liability relating to its Royal Gold streaming agreement) will increase to peak at C\$287.8m (US\$217.8m) in FY18 – equating to a contemporary leverage (debt/[debt+equity]) ratio of 92.2% – before reducing under the influence of positive operational cash-flows until it is eliminated in FY21. Should the company instead decide to maximise its debt funding capability of US\$240m (C\$317.1m) however, it would require the raising of less equity and would result in a 12.0% uplift in our valuation of EOX shares to C\$1.21/share (albeit with incrementally greater financial risk).

Sensitivities and risks

In qualitative terms, the principal risks to which the Ilovica project is immediately exposed include geographical/sovereign risk, geological risk, metallurgical risk, engineering risk, financing risk and management risk. In general terms, these are encompassed within what might be called 'execution risk', although many of these risks also have mitigating factors (see Sensitivities on page 8). Once in production however, these risks will be perceived to have reduced and other risks, such as commercial, commodity price, foreign exchange and global economic risks will become relatively more significant. In the meantime, our estimate of Euromax's discounted dividend NPV sensitivity to a number of specific quantitative input parameters may be summarised as follows:

Exhibit 1: Edison estimate of EOX valuation sensitivity to input parameters (various)		
Input parameter	Variation (%)	NPV sensitivity (%)
Metals prices	±10%	±39%
Costs	±10%	±19%
€/US\$ forex rate	±10%	±32%
C\$/US\$ forex rate	±10%	±5%

Source: Edison Investment Research

Company description: Macedonian copper developer

Euromax's flagship asset is Ilovica, a copper-gold porphyry deposit in Macedonia, which is the object of a recently completed definitive feasibility study.

Geography and legal

Ilovica lies within the municipality of Bosilovo, approximately 20km to the east of the town of Strumica, in the south-eastern province of Macedonia, close to its borders with both Greece and Bulgaria. Euromax holds two contiguous concessions at Ilovica, one relating to the Bosilovo municipality and the other relating to the Novo Selo municipality. Both concession agreements are for the exploitation of minerals and expire in July 2042 and January 2046. Both are in good standing. The land area granted for the exploitation of minerals amounts to 17.1km². It remains state land. The right to develop the property is effectively granted through a construction permit and urbanisation process.

Reserves and resources

In defining Ilovica's reserves and resources a total of 130 boreholes have been drilled over 42,032m (an average of 323m per hole) in 10 campaigns between 2004 and 2015. Of the total, 95 were drilled for resource estimation and 20 for geotechnical and 15 for hydrogeological investigations. The drill holes were generally vertical or steeply dipping, covering an approximately circular footprint, with a diameter of c 1km. For the purposes of the DFS, Euromax's resource was updated and upgraded relative to its 2014 PFS. In general, while there was little increase in the overall size of the resource, there was a large increase in the size of the measured portion of sulphide resources at the expense of those sulphide resources in the indicated category, ie approximately half of the indicated resource was upgraded by means of infill drilling into the measured category. Similarly, the majority of the sulphide probable reserve was upgraded into the proven category of reserves. With the caveat that no data was provided for inferred resources, Euromax's updated resource statement and its change from the previous statement is provided in the table below:

Exhibit 2: Ilovica updated resource, 2016 DFS vs 2014 PFS

Category	2016 DFS						2014 PFS						Change (units)		
	Tonnage (kt)	Au (g/t)	Cu (%)	Au (koz)	Cu (klbs)	Cu (kt)	Tonnage (kt)	Au (g/t)	Cu (%)	Au (koz)	Cu (klbs)	Cu (kt)	Tonnage (kt)	Au (koz)	Cu (kt)
Total															
Measured	159,600	0.32	0.21	1,660	729,500	331	18,440	0.34	0.22	202	89,452	41	141,160	1,458	290
Indicated	119,300	0.32	0.18	1,210	479,000	217	218,640	0.33	0.22	2,320	1,060,623	481	-99,340	-1,110	-264
Inferred	0			0	0	0	19,850	0.36	0.22	230	96,292	44	-19,850	-230	-44
Total	278,900	0.32	0.20	2,870	1,208,500	548	256,930	0.33	0.22	2,751	1,246,367	565	21,970	119	-17
Oxide															
Measured	12,500	0.41	0.00	160	0	0	1,340	0.38	0.00	16	0	0	11,160	144	0
Indicated	9,600	0.37	0.00	110	0	0	34,540	0.33	0.00	366	0	0	-24,940	-256	0
Inferred	0			0	0	0	6,750	0.25	0.00	54	0	0	-6,750	-54	0
Total	22,100	0.38	0.00	270	0	0	42,630	0.32	0.00	437	0	0	-20,530	-167	0
Sulphide															
Measured	147,100	0.31	0.23	1,500	729,500	331	17,100	0.34	0.24	185	89,452	41	130,000	1,315	290
Indicated	109,700	0.33	0.20	1,100	479,000	217	184,100	0.33	0.26	1,953	1,060,623	481	-74,400	-853	-264
Inferred	0			0	0	0	13,100	0.42	0.33	175	96,292	44	-13,100	-175	-44
Total	256,800	0.31	0.21	2,600	1,208,500	548	214,300	0.34	0.26	2,314	1,246,367	565	42,500	286	-17

Source: Euromax, Edison Investment Research

At the prevailing prices of gold and copper of US\$1,243/oz and US\$4,941/t at the time of writing, the updated resource equates to one of 5.0Moz of gold equivalent or 1,270kt of copper equivalent (2.8bnlb CuE).

Exhibit 3: Ilovica updated resource, AuE and CuE

Category	Au (koz)	Cu (kt)	Gold price (US\$/oz)	Copper price (US\$/t)	Gold value (US\$m)	Copper value (US\$m)	Total value (US\$m)	Gold equivalent (Moz AuE)	Copper equivalent (kt CuE)
Measured	1,660	331	1,243	4,941	2,063	1,635	3,698	2.975	748.4
Indicated	1,210	217	1,243	4,941	1,504	1,073	2,577	2.074	521.6
Inferred	0	0	1,243	4,941	0	0	0	0.000	0.0
Total	2,870	548	1,243	4,941	3,567	2,708	6,275	5.049	1,270.1

Source: Euromax, Edison Investment Research

In our report [Gold: The value of gold and other metals](#), published in February 2015, we calculated in-situ values of US\$141.95/t, US\$23.08/t and US\$39.82/t for the measured, indicated and inferred categories of copper resources, respectively. We also calculated values of US\$24.07/oz, US\$16.38/oz and US\$12.60/oz for the measured, indicated and inferred categories of gold resources listed in London and US\$48.08/oz, -US\$0.80/oz and US\$3.35/oz for the measured, indicated and inferred categories of gold resources listed in Canada. Note that these valuations include the values of co-products. Nevertheless, on the basis of these benchmarks, the Ilovica resource alone would be valued within the range US\$52.0-78.8m. Euromax's current market capitalisation of US\$41.5m at the time of writing suggests Euromax is trading at a 20.2-47.3% discount to the in-situ value of its resources, notwithstanding their exploitation potential, as set out in the recent definitive feasibility study.

Exhibit 4: Ilovica updated resource valuation, 2016 DFS

Category	Au (koz)	London-listed in-situ valuation (US\$/oz)	Value (US\$m)	Canadian-listed in-situ valuation (US\$/oz)	Value (US\$m)	Cu (kt)	Global average in-situ valuation (US\$/t)	Value (US\$m)
Measured	1,660	24.07	40.0	48.08	79.8	331	141.95	47.0
Indicated	1,210	16.38	19.8	-0.80	-1.0	217	23.08	5.0
Inferred	0	12.60	0.0	3.35	0.0	0	39.82	0.0
Total	2,870	20.83	59.8	27.47	78.8	548	91.95	52.0

Source: Euromax, Edison Investment Research

Similarly, the 2016 DFS demonstrated the conversion of 59% of probable sulphide reserves into the proven category.

Exhibit 5: Ilovica updated reserve, 2016 DFS vs 2014 PFS

Category	2016 DFS						2014 PFS						Change (units)		
	Tonnage (kt)	Au (g/t)	Cu (%)	Au (koz)	Cu (klbs)	Cu (kt)	Tonnage (kt)	Au (g/t)	Cu (%)	Au (koz)	Cu (klbs)	Cu (kt)	Tonnage (kt)	Au (koz)	Cu (kt)
Reserves															
Proven	112,600	0.32	0.22	1,170	543,900	247	0	0.00	0.00	0	0	0	112,600	1,170	247
Probable ¹				0	0	0	16,000	0.33	0.00	170	0	0	-16,000	-170	0
Probable ²	85,500	0.30	0.19	840	355,000	161	209,000	0.34	0.20	2,285	921,690	418	-123,500	-1,445	-257
Total	198,100	0.32	0.21	2,010	898,900	408	225,000	0.34	0.19	2,454	921,690	418	-26,900	-444	-10

Source: Euromax, Edison Investment Research. Note: ¹Oxide. ²Sulphide.

Geology

Ilovica is located in a northwest-southeast striking Cenozoic magmatic arc that covers large areas of central Romania, Serbia, Macedonia, Bulgaria, Greece and Turkey. It is associated with a poorly exposed dacite-granodiorite plug, emplaced along the north-eastern border of the northwest-southeast elongate Strumica graben. At surface the Ilovica intrusive complex consists of a central dacitic breccia diatreme that has been intruded by at least one dacite and two granodiorite porphyry stocks that have generated several hydrothermal pulses, resulting in widespread, multi-phase veining within a mineralised stockwork.

Metallurgy

The principal mineralisation to be exploited is chalcopyrite and pyrite. Both minerals are of a fine grain size, with chalcopyrite, D_{50} of $30\mu\text{m}$, being finer than pyrite, D_{50} of $45\mu\text{m}$. The distribution of gold is principally in the mineral grains, with no free gold being visible (ie militating against gravity separation). To maximise/optimize the recovery of both copper and gold, metallurgical testing indicated processing via bulk flotation to produce a single concentrate containing a saleable grade of copper and

1. a low-grade rougher tails for direct disposal to the tailings management facility (TMF)
2. a relatively high gold grade cleaner scavenger tailing to be treated by cyanide leaching and carbon-in-leach (CIL).

Locked cycle tests indicated production of a concentrate containing 24% copper and 34g/t gold at recoveries of 82% copper and 65% gold. In the meantime, tests on the cyanidation and leaching of the cleaner scavenger tails indicated recoveries into solution of gold of 85-90%. A recovery of 60% of the contained silver was also indicated (although the silver content of the feed has yet to be established). NB To this end, Euromax intends to re-assay existing coarse rejects from the entire drilling database in order to map the silver into the geological block model using sufficiently low detection limits to enable the value of silver reporting to the doré bars to be assessed.

Mining and processing

Mining

The mining method for Ilovica will use conventional drilling and blasting, together with trucks and shovel supported by a fleet of ancillary equipment. Drilling will be performed by tracked drills with 127mm diameter bits to a depth of 11m; blasting will be performed by contractors using ammonium nitrate and fuel oil (ANFO) slurry and non-electric detonation. Two hydraulic face shovels with bucket capacities of 16.5m^3 will be used on ore and waste, loading a fleet of between nine and 19 90t nominal payload, rigid dump trucks. Ancillary equipment will include tracked and wheeled bulldozers for earthmoving, graders for road maintenance and water bowsers for dust suppression. A fleet of service vehicles will maintain the mobile mining fleet. There will also be a complement of utility excavators and pick-up trucks etc, such that the total mining fleet will vary from 47 at the start of operations to 74 at its peak. Similarly, the complement of machine operators is expected to increase from 108 initially to a peak of 183. Maintenance personnel are forecast to number 60 and management, technical and operations staff 60.

Processing

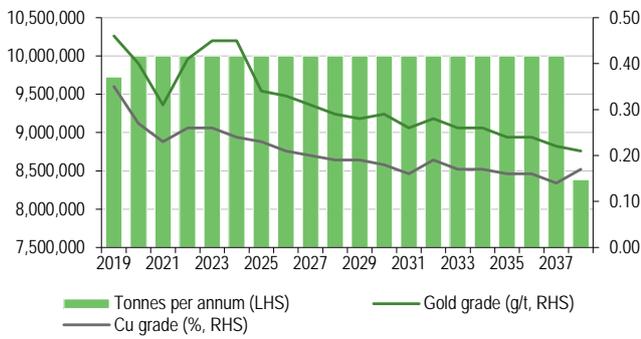
The process plant will be constructed for a 10Mtpa capacity (being limited by the profile of the open pit) to produce 78.8kt of (dry) concentrate per annum. Initially, the run-of-mine (ROM) ore will be crushed to a particle size P_{100} of 318mm. The crushed ore will then be further reduced in a semi-autogenous mill/ball mill/crusher circuit configuration to target a rougher flotation feed F_{80} of $75\mu\text{m}$. The milled slurry will then be fed to the rougher/scavenger flotation circuit. Rougher/scavenger tails will be discharged into the tails thickener for disposal to the TMF. In the meantime, rougher and rougher scavenger concentrate will be collected and fed into the regrind circuit designed to target a mill product P_{80} of $25\mu\text{m}$. Milled slurry will feed into the cleaner flotation circuit consisting of cleaner, cleaner scavenger and recleaner cells. Recleaner concentrate will be dewatered and stored as concentrate. The cleaner tails will feed the cleaner scavenger cells. Cleaner scavenger tails will feed into the leach and CIL circuit for further processing. Slurry from the cleaner scavenger tails will then be thickened and pumped through the counter-current CIL circuit for gold adsorption. Slurry from the

last CIL tank will be thickened and the thickened slurry passed through a cyanide detoxification step before the tails are discharged into the TMF. The loaded carbon will be removed from CIL tank 1 and eluted, with the resulting metal-rich solution then being passed through an electro-winning circuit. Finally, the metal 'sludge' plated onto the cathodes will be washed off and filtered to remove excess water and the filter cake will be calcined and smelted to produce doré bars.

Assumptions

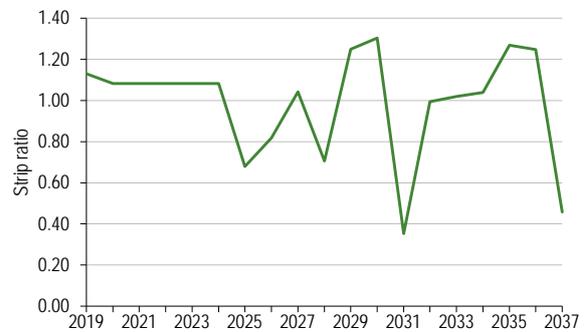
In formulating our financial model, we have made certain operating, financial and timing assumptions. Foremost among these is that construction will occur in FY17-18 and that production and throughput will then ramp-up quickly to 10Mtpa at average gold and copper grades of 0.32g/t and 0.21%, respectively, and that the stripping ratio will average 0.94:1 over the life of the mine, within the range 0.35-1.30 to one:

Exhibit 6: Ilovica production and grade assumptions



Source: Euromax, Edison Investment Research

Exhibit 7: Ilovica stripping ratio assumptions



Source: Euromax, Edison Investment Research

Additional operational and financial assumptions are summarised in the table below:

Exhibit 8: Ilovica operating and financial assumptions

	Units	Assumption
Flotation/concentrate circuit		
Gold recovery	%	64.6
Copper recovery	%	81.4
Concentrate grade	% copper	24.0
Concentrate moisture content	%	10.0
Gold payability in concentrate	%	96.6
Copper payability in concentrate	%	95.83
Transport of concentrate to Pirdop smelter	US\$/dmt*	26.29
Fluorine penalty	US\$/ppm.dmt	0.011 per ppm over 300ppm
Lead penalty	US\$ per percent per dmt	17.20 per percent above 0.5%
Copper treatment cost	US\$/dmt concentrate	76.95
Copper refining cost	US\$/lb contained copper	0.074
Gold treatment cost	US\$/oz contained gold	4.38
Cyanide leach & CIL circuit		
CIL feed	kt per annum	720
Gold recovery to doré	%	86.1
Gold payability	%	99.9
Gold refining cost	US\$/oz	0.36
Transport & insurance	US\$/oz	3.64
Financial		
Royalty	% of market value of metal produced in concentrate	2.0
Taxation rate	%	10.0
Creditor days	Days	30
Debtor days	Days	30
Stock turn	Cycles per annum	12

Source: Euromax, Edison Investment Research. Note: *dmt = dry metric tonne.

Gold price assumptions are those contained in our report, [Gold: The value of gold and other metals](#), published in February 2015. Our long-term copper price assumption, meanwhile, remains at US\$2.96/lb, or US\$6,527/t. Whereas resulting revenues are denominated in US dollars (which are subsequently converted into Canadian dollars for the purposes of accounting), costs at Ilovica are typically denominated in euros.

Initial capital expenditure is estimated to be €431.2m, or US\$480.6m at prevailing forex rates at the time of writing – equivalent to US\$48.06 per tonne of installed processing capacity – apportioned as follows:

Exhibit 9: Ilovica initial capital expenditure estimates (€000s)					
Item	FY17	FY18	FY19	Total	Percent (%)
Mining (€000s)	28,104	40,276	0	68,380	15.9
Process plant (€000s)	83,023	98,431	0	181,454	42.1
TMF (€000s)	8,687	27,093	3,259	39,039	9.1
Infrastructure onsite (€000s)	19,497	4,164	0	23,662	5.5
EPCM contractor (€000s)	32,311	13,721	2,365	48,396	11.2
Owner's costs (€000s)	22,938	7,263	0	30,201	7.0
Growth provision (€000s)	12,139	0	0	12,139	2.8
Contingency (€000s)	11,594	11,779	1,191	24,565	5.7
Temporary works (€000s)	3,337	0	0	3,337	0.8
Total capex (€000s)	221,630	202,728	6,815	431,173	100.0

Source: Euromax Resources, Edison Investment Research

Excluding working capital, subsequent, sustaining capital expenditure (divided approximately equally between the tailings management facility and the mining fleet) is forecast to amount to €180.5m, incurred over 21 years, from FY19 to FY39 inclusive, at an average rate of €8.6m per annum.

Final closure costs of €33.7m (approximately equally divided between the processing plant and TMF) are expected to be incurred in the final three years, FY39-41 (inclusive).

In the meantime, operating costs are divided between fixed and variable. Over the life of mining operations, fixed costs are forecast to average €25.4m per annum, while variable costs are forecast to be:

- €1.30 per tonne of sulphide ore mined.
- €1.25 per tonne of waste mined.
- €4.60 per tonne of sulphide ore processed.

Over the life of operations, the ratio of costs is predicted to be 26.7% to 73.3%, fixed to variable, respectively.

Valuation

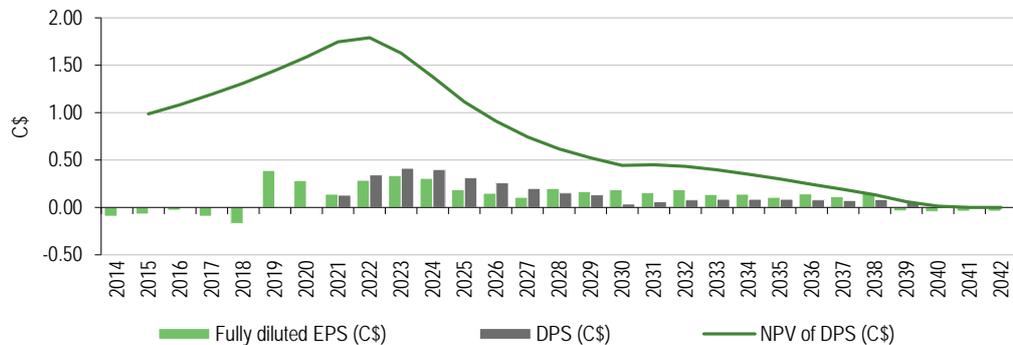
As stated in our [update note](#) of 14 May 2015, Euromax envisages financing Ilovica's funding requirement via debt, equity and streaming in approximately the following proportions:

Exhibit 10: Ilovica funding, by type			
Method	Amount (US\$m)	Percentage (%)	Comment
Streaming	175	34	Announced October 2014.
Debt	240	47	SocGen, UniCredit and UniCredit Austria mandated to provide US\$215m; Caterpillar Financial mandated to provide US\$25m. Announced 1 May 2015. Covered by German UFK scheme.
Equity	100	19	Possibly EBRD.
Total	515	100	

Source: Edison Investment Research, Euromax Resources

On the basis of the above assumptions (and assuming a notional US\$100m equity raise in the form of 264.2m shares at the prevailing share price of C\$0.50 per share and forex rate of C\$1.3211/US\$), we estimate a value for EOX shares of C\$1.08 per share, based on the net present value of maximum potential dividends payable to shareholders over the life of operations, discounted at 10% per annum:

Exhibit 11: Euromax estimated life-of-mine EPS and (maximum potential) DPS



Source: Edison Investment Research

Crudely, this dividend flow comprises discounted positive cash flows from operations of C\$902m minus C\$663m in initial capex commitments, plus C\$132m in near-term equity financings (equals C\$371m), divided by 381.1m fully diluted (future) shares in issue.

However, of note is the fact that execution of the mining plan at the parameters indicated in the DFS implies future potential (fully diluted) EPS as high as C\$0.43/share – ie in the same order of magnitude as the current share price – and average (fully diluted) EPS for the period during which operations are running at full capacity of C\$0.18/share.

Moreover, this valuation increases to C\$1.79 in 2022, when debt is repaid and the first substantive dividend distribution is payable.

Stated alternatively, investors buying Euromax shares at the current price of C\$0.50/share may expect a 21.7% internal rate of return from their investment in Canadian dollar terms over a term of 25 years.

Sensitivities

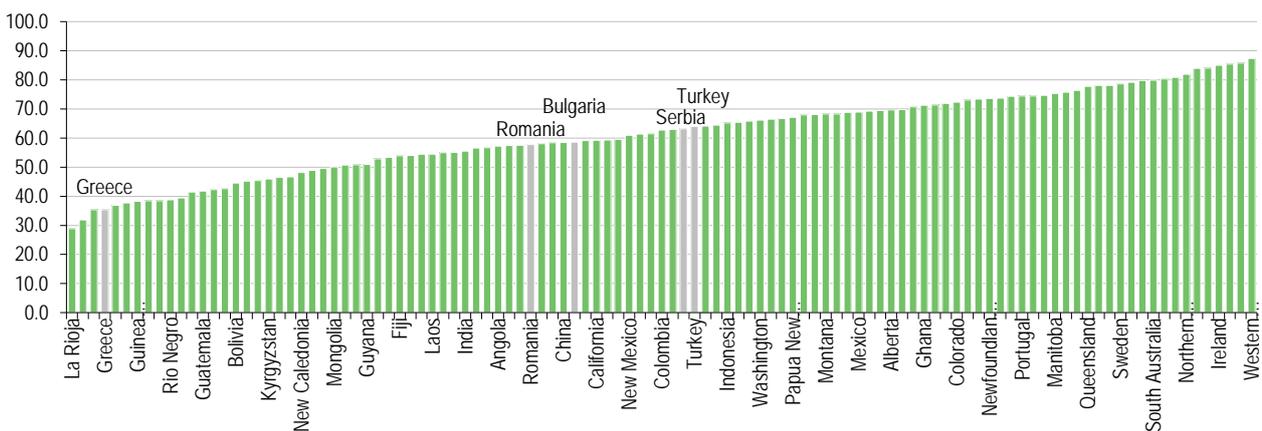
In qualitative terms, the principal risks to which the Ilovica project is immediately exposed include geographical/sovereign risk, geological risk, metallurgical risk, engineering risk, financing risk and management risk. In general terms, these may be summarised as execution risk – ie management’s ability to bring the project to account within its geographical jurisdiction and the required technical parameters. Once in production however, these risks will be perceived to have reduced and other risks, such as commercial, commodity price, foreign exchange and global economic risks will become relatively more significant. In the meantime however, a number of circumstances mitigate the initial risks identified.

- In geological terms, the porphyritic nature of Ilovica means that, despite the grades being relatively low, there is a high degree of continuity in the ore-body, such that high volume, low cost, bulk mining techniques can be used with confidence and with reduced risk of dilution. Note that this also mitigates engineering risk to some extent. Geological risk mitigation also exists in the form of the relatively close-spaced drilling performed by Euromax at Ilovica, which is as close as 50m x 50m in some areas (also reflected in the fact that a high proportion of the

resource is in the measured category and a high proportion of the reserve is in the proven category).

- Metallurgical risk is mitigated by the fact that there are consecutive flotation and cyanidation steps to the process route. While the process flow route is designed to treat sulphide ore therefore, the majority of gold from oxide ore should also be recoverable. By extension, the majority of gold from transitional ore should also therefore be recoverable plus some copper – although the exact recoverability of copper from the transitional ore (within the range 0% to 84% remains uncertain at this time). Further risk mitigation also exists in the fact that less than 8% of the total resource (by tonnage) is in the form of oxide material and reserves are exclusively composed of sulphide material and high (copper) grade transitional material only.
- The Ilovica site exhibits steep longitudinal gradients and steep crossfalls, which affects the design of roads, terraces and other features that require earthworks. However, engineering risk is mitigated by the fact that a geotechnical site investigation has already been managed by Amec Foster Wheeler and that plant and other terraces have been designed to South African standards to best fit in with the topography and their functional requirements.
- Management risk is mitigated by the fact that six of the 12 of Euromax’s board and senior management (namely Messrs Koenig, Sharpe, Gokool, Forward, Morgan-Wynne and Baker) are alumni of European Goldfields and therefore have experience in developing mines in the region (eg Stratoni and Skouries).
- In terms of sovereign/geographical risk, Macedonia does not appear in the Fraser Institute’s survey and ranking of investment attractiveness. While near neighbour Greece fares relatively poorly in the survey, this can probably be reasonably attributed to its specific travails within the European Union currently. In the meantime, other near neighbours Romania, Bulgaria, Serbia and Turkey all rank towards the middle of the range of investment attractiveness (see Exhibit 12), while EOX management confirms that the Macedonian government has always proved amenable to work with, both on account of its desire to be accepted into the European Union, the scale of the Ilovica project relative to the national economy and also the fact that many government ministers are former émigrés, returning after two or three generations, having been educated in the West.

Exhibit 12: Fraser Institute 2015 survey of Investment Attractiveness (Macedonia near neighbours highlighted)



Source: Fraser Institute

From a quantitative perspective meanwhile, variations in Euromax’s discounted dividend NPV with metals prices, costs, the discount rate and foreign exchange rates, respectively, are shown in the tables below.

Exhibit 13: Euromax discounted dividend NPV sensitivity to metals prices (C\$/share)

Metals prices change	Spot price*	-10%	Base case	+10%
NPV (C\$/share)	0.24	0.67	1.08	1.50
Percent change in NPV (%)	-77.8	-38.0	N/A	+38.9

Source: Edison Investment Research. Note: *US\$1,243/oz Au, US\$4,941/t Cu & US\$15.86/oz Ag.

Note that the current copper price is currently 24.3% below our long-term copper price.

Exhibit 14: Euromax discounted dividend NPV sensitivity to unit costs (C\$/share)

Unit costs change	+10%	Base case	-10%
NPV (C\$/share)	0.88	1.08	1.29
Percent change in NPV (%)	-18.5	N/A	+19.4

Source: Edison Investment Research

Exhibit 15: Euromax discounted dividend NPV at varying discount rates (C\$/share)

Discount rate (%)	0%	10%	20%	30%
NPV (C\$/share)	3.09	1.08	0.47	0.23

Source: Edison Investment Research

With respect to foreign exchange rates, the relationship between the Canadian dollar and the US dollar is merely one of conversion, whereas the relationship between the euro and the US dollar has a direct causative effect on margins (costs typically being denominated in euros, whereas revenues are denominated in US dollars) and is therefore significantly larger in terms of its effect:

Exhibit 16: Euromax discounted dividend NPV at varying €/US\$ rates (C\$/share)

€/US\$ rate	1.0031	1.1146	1.2261
Change (%)	-10.0	0.0	+10.0
NPV (C\$/share)	1.42	1.08	0.76
Percent change in NPV (%)	+31.5	N/A	-29.6

Source: Edison Investment Research

Exhibit 17: Euromax discounted dividend NPV at varying C\$/US\$ rates (C\$/share)

C\$/US\$ rate	1.1890	1.3211	1.4532
Change (%)	-10.0	0.0	+10.0
NPV (C\$/share)	1.03	1.08	1.13
Percent change in NPV (%)	-4.6	N/A	+4.6

Source: Edison Investment Research

Financials

We estimate that Euromax had c C\$1.0m of cash on its balance sheet as at end-December 2015 (excluding the accounting 'liability' associated with the Royal Gold streaming deal). We expect it to raise US\$100m (or C\$132.1m) in equity, approximately coincident with the signing of final debt funding agreements with its consortium of banks. As it draws down debt to fund the initial capital expenditure of Ilovica, we estimate that net debt (excluding the contingent liability relating to its Royal Gold streaming agreement) will increase to peak at C\$287.8m (US\$217.8m) in FY18 – equating to a contemporary leverage (debt/[debt+equity]) ratio of 92.2% – before reducing under the influence of positive operational cash flows until it is eliminated in FY21.

Note that this estimated C\$287.8m, or US\$217.8m, net debt requirement is below the figure of US\$240m (C\$317.1m) for which Euromax's consortium of financial partners has been mandated. Should Euromax instead decide to maximise its debt funding capability, it would require the raising of only C\$104.2m (US\$78.9m) in equity and would result in a 12.0% uplift in our valuation of Euromax's shares (albeit with proportionately greater financial risk) to C\$1.21/share.

Exhibit 18: Financial summary

	C\$000s	2011	2012	2013	2014	2015e	2016e
Year end 31 December		IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS							
Revenue		0	0	0	2,695	3,663	0
Cost of Sales		0	0	0	(2,251)	(3,018)	0
Gross Profit		0	0	0	444	645	0
EBITDA		(2,521)	(4,973)	(5,276)	(6,366)	(7,944)	(8,589)
Operating Profit (before amort. and except.)		(2,611)	(5,056)	(5,375)	(6,492)	(8,121)	(8,766)
Intangible Amortisation		0	0	0	(21)	(8)	0
Exceptionals		(40)	59	(1,806)	(4,186)	(1,979)	0
Other		(835)	(428)	(835)	4	12	0
Operating Profit		(3,485)	(5,425)	(8,015)	(10,695)	(10,096)	(8,766)
Net Interest		0	0	(17)	(127)	(524)	15
Profit Before Tax (norm)		(2,611)	(5,056)	(5,392)	(6,619)	(8,645)	(8,752)
Profit Before Tax (FRS 3)		(3,485)	(5,425)	(8,033)	(10,822)	(10,620)	(8,752)
Tax		0	(33)	(30)	(25)	(27)	0
Profit After Tax (norm)		(2,514)	(4,947)	(5,414)	(6,640)	(8,660)	(8,752)
Profit After Tax (FRS 3)		(3,485)	(5,458)	(8,063)	(10,847)	(10,647)	(8,752)
Average Number of Shares Outstanding (m)		48.0	63.4	82.6	85.3	116.8	249.0
EPS - normalised (c)		(5.2)	(7.8)	(6.6)	(7.8)	(7.4)	(3.5)
EPS - normalised and fully diluted (c)		(4.5)	(6.7)	(5.8)	(5.7)	(5.6)	(3.0)
EPS - (IFRS) (c)		(7.3)	(8.6)	(9.8)	(12.7)	(9.1)	(3.5)
Dividend per share (c)		0.0	0.0	0.0	0.0	0.0	0.0
Gross Margin (%)		N/A	N/A	N/A	N/A	N/A	#DIV/0!
EBITDA Margin (%)		N/A	N/A	N/A	N/A	N/A	#DIV/0!
Operating Margin (before GW and except.) (%)		N/A	N/A	N/A	N/A	N/A	#DIV/0!
BALANCE SHEET							
Fixed Assets		11,929	17,084	18,015	16,641	26,293	26,115
Intangible Assets		0	0	29	430	422	422
Tangible Assets		11,929	17,084	17,985	16,211	25,871	25,693
Investments		0	0	0	0	0	0
Current Assets		2,798	3,341	6,290	3,180	3,281	137,136
Stocks		0	0	0	0	305	0
Debtors		776	1,579	608	199	301	0
Cash		2,022	1,762	1,335	2,110	1,804	136,265
Other		0	0	4,346	871	871	871
Current Liabilities		(530)	(749)	(1,208)	(5,831)	(7,790)	(7,542)
Creditors		(530)	(749)	(1,208)	(4,996)	(6,955)	(6,707)
Short term borrowings		0	0	0	(835)	(835)	(835)
Long Term Liabilities		0	0	0	0	(10,568)	(21,135)
Long term borrowings		0	0	0	0	(10,568)	(21,135)
Other long term liabilities		0	0	0	0	0	0
Net Assets		14,198	19,675	23,096	13,990	11,216	134,574
CASH FLOW							
Operating Cash Flow		(1,966)	(5,178)	(4,496)	(2,494)	(6,904)	(8,217)
Net Interest		0	0	(17)	(18)	0	0
Tax		0	0	(35)	(26)	(27)	0
Capex		(5,245)	(6,947)	(5,047)	(2,122)	(11,816)	0
Acquisitions/disposals		0	1,468	1,041	3,023	0	0
Financing		7,907	10,479	7,961	(74)	7,874	132,110
Dividends		0	0	0	0	0	0
Net Cash Flow		696	(178)	(594)	(1,711)	(10,873)	123,893
Opening net debt/(cash)*		(1,253)	(2,022)	(1,762)	(1,406)	(1,275)	9,598
HP finance leases initiated		0	0	0	0	0	0
Other		73	(83)	167	1,580	0	0
Closing net debt/(cash)*		(2,022)	(1,762)	(1,335)	(1,275)	9,598	(114,295)

Source: Company sources, Edison Investment Research. Note: *Closing net debt/(cash) includes 'restricted cash' from FY14.

Contact details	Revenue by geography
Euromax Resources UK (Services) Fifth Floor, 12 Berkeley Street London W1J 8DT United Kingdom of Great Britain & Northern Ireland +44 (0)20 3667 2970 www.euromaxresources.com	N/A
Management team	
Non-executive chairman: Martyn Konig	President & CEO: Steve Sharpe
Mr Konig has extensive experience in the natural resource sector (eg executive chairman and president of European Goldfields), which includes senior management responsibility in resource finance and commodity trading operations at various international investment banks (eg NM Rothschild, Goldman Sachs and UBS). He is a non-executive director of New Gold and was CEO of Blackfish Capital Group from 2005-09. He is a barrister and fellow of the Chartered Institute of Bankers.	Mr Sharpe has over 25 years of investment banking experience, focused on the mining sector. He has held senior management positions at Endeavour Financial, Standard Bank and NM Rothschild & Sons. He is an honorary board member of Macedonia 2025, a group dedicated to enhancing business opportunities and the economic development of Macedonia. He was previously senior VP, business development at European Goldfields, and managing director (structured finance) at Canaccord Genuity. He holds a BA (hons) in European business studies.
CFO: Varshan Gokool	COO: Pat Forward
Mr Gokool was previously VP and treasurer at European Goldfields, where he was responsible for the sourcing and execution of debt financing for the Hellas Gold and Certej Projects, tax structuring, financial modelling, insurance and offtake negotiation. Prior to that, he had a number of corporate and banking mining roles, including being treasurer at Katanga Mining, a vice president in Societe Generale's Mining Finance team and working for Ashanti as a risk manager. He is a graduate of the University of Cape Town with a BBusSci (finance), and is a CFA charter holder.	Mr Forward was previously VP, projects & exploration at European Goldfields, where he was responsible for the development of the Skouries and Olympias projects in Greece, the Certej project in Romania and EGU's portfolio of exploration properties. In the early 1990s, he managed exploration projects in Europe, Ghana and Venezuela before spending five years in Burkina Faso where he discovered Semafo's 2.8Moz Mana deposit. Among other things, Mr Forward specialised in geological due diligence, resource estimation, the application of GIS systems to exploration projects and deposit evaluation. He is a Qualified Person with the respect to NI 43-101 reporting.
Principal shareholders	(%)
EBRD	20.00
Blake Holdings	13.07
Richmond Partners	11.26
Investec	7.92
R. Griffiths	6.00
M. Konig	2.67
T. Morgan-Wynne	0.95
Companies named in this report	
European Goldfields (EGU)	

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